Gln	Glu	Phe 115	Gly	Pro	Ile	Ser	Tyr 120	Val	Val	Val	Met	Pro 125	Lys	Lys	Ar
Gln	Ala 130	Leu	Val	Glu	Phe	Glu 135	Asp	Val	Leu	Gly	Ala 140	Суѕ	Asn	Ala	Va
Asn 145	туг	Ala	Ala	Asp	Asn 150	Gln	Ile	Tyr	Ile	Ala 155	Gly	His	Pro	Ala	Ph 16
Val	Asn	Tyr	Ser	Thr 165	Ser	Gln	Lys	Ile	Ser 170	Arg	Pro	Gly	Asp	Ser 175	As
Asp	Ser	Arg	Ser 180	Val	Asn	Ser	Val	Leu 185	Leu	Phe	Thr	Ile	Leu 190	Asn	Pr
Ile	Tyr	Ser 195	Ile	Thr	Thr	Asp	Val 200	Leu	Tyr	Thr	Ile	Cys 205	Asn	Pro	Су
Gly	Pro 210	Val	Gln	Arg	Ile	Val 215	Ile	Phe	Arg	Lys	Asn 220	Gly	Val	Gln	Al
Met 225	Val	Glu	Phe	Asp	Ser 230	Val	Gln	Ser	Ala	Gln 235	Arg	Ala	Lys	Ala	Se:
Leu	Asn	Gly	Ala	Asp 245	Ile	Tyr	Ser	Gly	Cys 250	Cys	Thr	Leu	Lys	Ile 255	Gl
Tyr	Ala	Lys	Pro 260	Thr	Arg	Leu	Asn	Val 265	Phe	Lys	Asn	Asp	Gln 270	Asp	Th
Trp	Asp	Tyr 275	Thr	Asn	Pro	Asn	Leu 280	Ser	Gly	Gln	Gly	Asn 285	Leu	Asp	Asj
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Trp Tyr Cys Asn Arg Asp Phe Asp Asp Glu Lys Ile Leu Ile Gln His 20 25 30

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Thr	Gly 50		Gly	Leu	Ala	Ile 55		Cys	Met	Gln	Val 60		Lys	Glu	Thr
Ile 65		Ala	Val	Pro	Asn 70		Ile	Pro	Gly	Arg 75		Asp	Ile	Glu	Leu 80
Glu	Ile	Tyr	Gly	Met 85		Gly	Ile	Pro	Glu 90		Asp	Met	Asp	Glu 95	Arg
Arg	Arg	Leu	Leu 100		Gln	Lys	Thr	Gln 105		Ser	Gln	Lys	Lys 110	Lys	Gln
Gln	Asp	Asp 115		Asp	Glu	Tyr	Asp 120	Asp	Asp	Asp	Ser	Ala 125	Ala	Ser	Thr
Ser	Phe 130		Pro	Gln	Pro	Val 135	Gln	Pro	Gln	Gln	Gly 140	Tyr	Ile	Pro	Pro
Met 145	Ala	Gln	Pro	Gly	Leu 150	Pro	Pro	Val	Pro	Gly 155	Ala	Pro	Gly	Met	Pro 160
Pro	Gly	Ile	Pro	Pro 165	Leu	Met	Pro	Gly	Val 170	Pro	Pro	Leu	Met	Pro 175	Gly
Met	Pro	Pro	Val 180	Met	Pro	Gly	Met	Pro 185	Pro	Gly	Leu	His	His 190	Gln	Arg
Lys	Tyr	Thr 195	Gln	Ser	Phe	Суз	Gly 200	Glu	Asn	Ile	Met	Met 205	Pro	Met	Gly
Gly	Met 210	Met	Pro	Pro	Gly	Pro 215	Gly	Ile	Pro	Pro	Leu 220	Met	Pro	Gly	Met
Pro 225	Pro	Gly	Met	Pro	Pro 230	Pro	Val	Pro	Arg	Pro 235	Gly	Ile	Pro	Pro	Met 240
Thr	Gln	Ala	Gln	Ala 245	Val	Ser	Ala	Pro	Gly 250	Ile	Leu	Asn	Arg	Pro 255	Pro
Ala	Pro	Thr	Ala 260	Thr	Val	Pro	Ala	Pro 265	Gln	Pro	Pro	Val	Thr 270	Lys	Pro
Leu	Phe	Pro 275	Ser	Ala	Gly	Gln	Ala 280	Gln	Ala	Ala	Val	Gln 285	Gly	Pro	Val
Gly	Thr 290	Asp	Phe	Lys	Pro	Leu 295	Asn	Ser	Thr	Pro	Ala 300	Thr	Thr	Thr	Glu

Pro Pro Lys Pro Thr Phe Pro Ala Tyr Thr Gln Ser Thr Ala Ser Thr 305 310 315

Thr Ser Thr Thr Asn Ser Thr Ala Ala Lys Pro Ala Ala Ser Ile Thr 325 330 335

Ser Lys Pro Ala Thr Leu Thr Thr Ser Ala Thr Ser Lys Leu Ile 340 345 350

His Pro Asp Glu Asp Ile Ser Leu Glu Glu Arg Arg Ala Gln Leu Pro 355 360 365

Lys Tyr Gln Arg Asn Leu Pro Arg Pro Gly Gln Ala Pro Ile Gly Asn 370 375 380

Pro Pro Val Gly Pro Ile Gly Gly Met Met Pro Pro Gln Pro Gly Ile 385 390 395 400

Pro Gln Gln Gly Met Arg Pro Pro Met Pro Pro His Gly Gln Tyr 405 410 415

Gly Gly His His Gln Gly Met Pro Gly Tyr Leu Pro Gly Ala Met Pro 420 425 430

Pro Tyr Gly Gln Gly Pro Pro Met Val Pro Pro Tyr Gln Gly Gly Pro
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Pro Arg Pro Pro Met Gly Met Arg Pro Pro Val Met Ser Gln Gly Gly 450 460

Arg Tyr 465

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Gln Tyr Val Leu Thr Glu Asp Met Asp Phe Ile Cys Ser Ser Ala Gly
35 40 45

Ile Gly Lys Leu Asp Leu Phe Ser Met Ile Gln Asn Ser Pro Ile Arg

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Arg Thr Gln Asn Ser Glu Asn Thr Phe Glu Cys Tyr Leu Tyr Gly Val

	130					135					140				
Asp 145	Phe	Leu	Thr	Leu	His 150	Lys	Lys	Thr	Ser	Thr 155	Gly	Glu	Gln	Arg	Ser 160
Val	Phe	Ser	Gln	Cys 165	Gly	Lys	Ala	Phe	Ser 170	Leu	Asn	Pro	Asp	Val 175	Val
Cys	Gln	Arg	Thr 180	Cys	Thr	Gly	Glu	Lys 185	Ala	Phe	Asp	Cys	Ser 190	Asp	Ser
Gly	Lys	Ser 195	Phe	Ile	Asn	His	Ser 200	His	Leu	Gln	Gly	His 205	Leu	Arg	Thr
His	Asn 210	Gly	Glu	Ser	Leu	His 215	Glu	Trp	Lys	Glu	Cys 220	Gly	Arg	Gly	Phe
Ile 225	His	Ser	Thr	Asp	Leu 230	Ala	Val	Arg	Ile	Gln 235	Thr	His	Arg	Ser	Glu 240
Lys	Pro	Tyr	Lys	Cys 245	Lys	Glu	Суѕ	Gly	Lys 250	Gly	Phe	Arg	Tyr	Ser 255	Ala
Tyr	Leu	Asn	Ile 260	His	Met	Gly	Thr	His 265	Thr	Gly	Asp	Asn	Pro 270	Tyr	Glu
Сув	Lys	Glu 275	Суз	Gly	Lys	Ala	Phe 280	Thr	Arg	Ser	Суз	Gln 285	Leu	Thr	Gln
His	Arg 290	Lys	Thr	His	Thr	Gly 295	Glu	Lys	Pro	Tyr	Lys 300	Суз	Lys	Asp	Cys
Gly 305	Arg	Ala	Phe	Thr	Val 310	Ser	Ser	Суз	Leu	Ser 315	Gln	His	Met	Lys	Ile 320
His	Val	Gly	Glu	Lys 325	Pro	Tyr	Glu	Cys	Lys 330	Glu	Суз	Gly	Ile	Ala 335	Phe
Thr	Arg	Ser	Ser 340	Gln	Leu	Thr	Glu	His 345	Leu	Lys	Thr	His	Thr 350	Ala	Lys
		355			Lys		360					365			
	370				Phe	375					380				-
385					Lys 390					395					400
His	Ala	Arg	Thr	His	Ser	Gly	Glu	Arg	Pro	Tyr	Glu	Cys	Lys	Glu	Cys

405 410 415 Gly Lys Ala Phe Ala Arg Ser Ser Arg Leu Ser Glu His Thr Arg Thr His Thr Gly Glu Lys Pro Phe Glu Cys Val Lys Cys Gly Lys Ala Phe 440 Ala Ile Ser Ser Asn Leu Ser Gly His Leu Arg Ile His Thr Gly Glu 455 Lys Pro Phe Glu Cys Leu Glu Cys Gly Lys Ala Phe Thr His Ser Ser 470 475 465 Ser Leu Asn Asn His Met Arg Thr His Ser Ala Lys Lys Pro Phe Thr 490 Cys Met Glu Cys Gly Lys Ala Phe Lys Phe Pro Thr Cys Val Asn Leu His Met Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Xaa Gln Cys Gly Lys Ser Phe Ser Tyr Ser Asn Ser Phe Gln Leu His Glu Arg Thr 535 His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys Ala Phe 545 550 555 Ser Ser Ser Ser Phe Arg Asn His Glu Arg Arg His Ala Asp Glu 570 Arg Leu Ser Ala 580 <210> 1358 <211> 612 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (134) <223> Xaa equals any of the naturally occurring L-amino acids

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Arg	Thr	Ala 35	Phe	Gly	Gly	Arg	Arg 40	Ala	Val	Pro	Pro	Asn 45	Asn	Ser	Asn
Ala	Ala 50	Glu	Asp	Asp	Leu	Pro 55	Thr	Val	Glu	Leu	Gln 60	Gly	Val	Val	Pro
Arg 65	Gly	Val	Asn	Leu	Gln 70	Asp	Asp	Ala	Val	Туг 75	Leu	Asp	Asn	Glu	Lys 80
Glu	Arg	Glu	Glu	Tyr 85	Val	Leu	Asn	Asp	Ile 90	Gly	Val	Ile	Phe	Tyr 95	Gly
Glu	Val	Asn	Asp 100	Ile	Lys	Thr	Arg	Ser 105	Trp	Ser	Tyr	Gly	Gln 110	Phe	Glu
Asp	Gly	Ile 115	Leu	Asp	Thr	Cys	Leu 120	Tyr	Val	Met	Asp	Arg 125	Ala	Gln	Met
Asp	Leu 130	Ser	Gly	Arg	Xaa	Asn 135	Pro	Ile	Lys	Val	Ser 140	Arg	Val	Gly	Ser
Ala 145	Met	Val	Asn	Ala	Lys 150	Asp	Asp	Glu	Gly	Val 155	Leu	Val	Gly	Ser	Trp 160
Asp	Asn	Ile	туг	Ala 165	Tyr	Gly	Val	Pro	Pro 170	Ser	Ala	Trp	Thr	Gly 175	Ser
Val	Asp	Ile	Leu 180	Leu	Glu	Tyr	Arg	Ser 185	Ser	Glu	Asn	Pro	Val 190	Arg	Tyr
Gly	Gln	Cys 195	Trp	Val	Phe	Ala	Gly 200	Val	Phe	Asn	Thr	Phe 205	Leu	Arg	Cys
Leu	Gly 210	Ile	Pro	Ala	Arg	Ile 215	Val	Thr	Asn	туг	Phe 220	Ser	Ala	His	Asp
Asn 225	Asp	Ala	Asn	Leu	Gln 230	Met	Asp	Ile	Phe	Leu 235	Glu	Glu	Asp	Gly	Asn 240
Val	Asn	Ser	Lys	Leu 245	Thr	Lys	Asp	Ser	Val 250	Trp	Asn	Tyr	His	Cys 255	Trp
Asn	Glu	Ala	Trp	Met	Thr	Arg	Pro	Asp	Leu	Pro	Val	Gly	Phe	Gly	Gly

265 260 270 Trp Gln Ala Val Asp Ser Thr Pro Gln Glu Asn Ser Asp Gly Met Tyr 275 280 Arg Cys Gly Pro Ala Ser Val Gln Ala Ile Lys His Gly His Val Cys Phe Gln Phe Asp Ala Pro Phe Val Phe Ala Glu Val Asn Ser Asp Leu 315 Ile Tyr Ile Thr Ala Lys Lys Asp Gly Thr His Val Val Glu Asn Val Asp Ala Thr His Ile Gly Lys Leu Ile Val Thr Lys Gln Ile Gly Gly 345 Asp Gly Met Met Asp Ile Thr Asp Thr Tyr Lys Phe Gln Glu Gly Gln 360 Glu Glu Glu Arg Leu Ala Leu Glu Thr Ala Leu Met Tyr Gly Ala Lys Lys Pro Leu Asn Thr Glu Gly Val Met Lys Ser Arg Ser Asn Val Asp 390 395 Met Asp Phe Glu Val Glu Asn Ala Val Leu Gly Lys Asp Phe Lys Leu 405 Ser Ile Thr Phe Arg Asn Asn Ser His Asn Arg Tyr Thr Ile Thr Ala 425 Tyr Leu Ser Ala Asn Ile Thr Phe Tyr Thr Gly Val Xaa Lys Ala Glu 440 Phe Lys Lys Glu Thr Phe Asp Val Thr Leu Glu Pro Leu Ser Phe Lys Lys Glu Ala Val Leu Ile Gln Ala Gly Glu Tyr Met Gly Gln Leu Leu Glu Gln Ala Ser Leu His Phe Phe Val Thr Ala Arg Ile Asn Glu Thr 485 490 Arg Asp Val Leu Ala Lys Gln Lys Ser Thr Val Leu Thr Ile Pro Glu 505 Ile Ile Ile Lys Val Arg Gly Thr Gln Val Val Gly Ser Asp Met Thr 520 525 Val Thr Val Glu Phe Thr Asn Pro Leu Lys Glu Thr Leu Arg Asn Val

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1409

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Asn	Val	Glu	Ile 20	Trp	Lys	Ile	Lys	Lys 25	Leu	Ile	Lys	Ser	Leu 30	Glu	Ala
Ala	Arg	Gly 35	Asn	Gly	Thr	Ser	Met 40	Ile	Ser	Leu	Ile	Ile 45	Pro	Pro	Lys
Asp	Gln 50	Ile	Ser	Arg	Val	Ala 55	Lys	Met	Leu	Ala	Asp 60	Glu	Phe	Gly	Thr
Ala 65	Ser	Asn	Ile	Lys	Ser 70	Arg	Val	Asn	Arg	Leu 75	Ser	Val	Leu	Gly	Ala 80
Ile	Thr	Ser	Val	Gln 85	Gln	Arg	Leu	Lys	Leu 90	туг	Asn	Lys	Val	Pro 95	Pro
Asn	Gly	Leu	Val 100	Val	Tyr	Суз	Gly	Thr 105	Ile	Val	Thr	Glu	Glu 110	Gly	Lys
Glu	Lys	Lys 115	Val	Asn	Ile	Asp	Phe 120	Glu	Pro	Phe	Lys	Pro 125	Ile	Asn	Thr
Ser	Leu 130	Tyr	Leu	Cys	Asp	Asn 135	Lys	Phe	His	Thr	Glu 140	Ala	Leu	Thr	Ala
Leu 145	Leu	Ser	Asp	Asp	Ser 150	Lys	Phe	Gly	Phe	Ile 155	Val	Ile	Asp	Gly	Ser 160
Gly	Ala	Leu	Phe	Gly 165	Thr	Leu	Gln	Gly	Asn 170	Thr	Arg	Glu	Val	Leu 175	His
Lys	Phe	Thr	Val 180	Asp	Leu	Pro	Lys	Lys 185	His	Gly	Arg	Gly	Gly 190	Gln	Ser
Ala	Leu	Arg 195	Phe	Ala	Arg	Leu	Arg 200	Met	Glu	Lys	Arg	His 205	Asn	Tyr	Val
Arg	Lys 210	Val	Ala	Glu	Thr	Ala 215	Val	Gln	Leu	Phe	Ile 220	Ser	Gly	Asp	Lys
Val 225	Asn	Val	Ala	Gly	Leu 230	Val	Leu	Ala	Gly	Ser 235	Ala	Asp	Phe	Lys	Thr 240
Glu	Leu	Ser	Gln	Ser 245	Asp	Met	Phe	Asp	Gln 250	Arg	Leu	Gln	Ser	Lys 255	Val

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1412

Leu Lys Leu Val Asp Ile Ser Tyr Gly Gly Glu Asn Gly Phe Asn Gln 260 265 270

Ala Ile Glu Leu Ser Thr Glu Val Leu Ser Asn Val Lys Phe Ile Gln 275 280 285

Glu Lys Lys Leu Ile Gly Arg Tyr Phe Asp Glu Ile Ser Gln Asp Thr 290 295 300

Gly Lys Tyr Cys Phe Gly Val Glu Asp Thr Leu Lys Ala Leu Glu Met 305 310 315 320

Gly Ala Val Glu Ile Leu Ile Val Tyr Glu Asn Leu Asp Ile Met Arg 325 330 335

Tyr Val Leu His Cys Gln Gly Thr Glu Glu Glu Lys Ile Leu Tyr Leu 340 345 350

Thr Pro Glu Gln Glu Lys Asp Lys Ser His Phe Thr Asp Lys Glu Xaa 355 360 365

Arg Thr Gly Thr Met Xaa Leu Ser Arg Ala Xaa Pro Xaa Leu Glu Xaa 370 375 380

Xaa Xaa Asn Asn Xaa Lys Lys Leu Gly Leu Pro Trp Xaa Ile Gly Pro 385 390 395 400

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Phe Ile Lys Thr Ser Thr Gly Lys Glu Thr Val Asn Ala Thr Phe Pro 20 25 30

Val Ala Ile Val Met Leu Arg Ala Ile Arg Asp Phe Phe Trp Lys Thr 35 40 45

Gly Asn Lys Ile Gly Phe Lys Pro Ala Gly Gly Ile Arg Ser Ala Lys
50 55 60

Asp Ser Leu Ala Trp Leu Ser Leu Val Lys Glu Glu Leu Gly Asp Glu

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Asn Phe Asn Met Ser Val Ser Ser Met Glu Tyr Ile Pro Glu Gly Glu

115 120 125 Ile Leu Val Ile Thr Tyr Gly Arg Ser Ile Ala Phe His Ser Ala Val 130 135 140 Ser Leu Asp Pro Ile Lys Ser Phe Glu Ala Pro Ala Thr Ile Asn Ser 150 155 Ala Ser Leu His Pro Glu Lys Glu Phe Leu Val Ala Gly Gly Glu Asp 170 Phe Lys Leu Tyr Lys Tyr Asp Tyr Asn Ser Gly Glu Glu Leu Glu Ser 185 Tyr Lys Gly His Phe Gly Pro Ile His Cys Val Arg Phe Ser Pro Asp Gly Glu Leu Tyr Ala Ser Gly Ser Glu Asp Gly Thr Leu Arg Leu Trp 210 215 Gln Thr Val Val Gly Lys Thr Tyr Gly Leu Trp Lys Cys Val Leu Pro 235 Glu Glu Asp Ser Gly Glu Leu Ala Lys Pro Lys Ile Gly Phe Pro Glu 250 Thr Thr Glu Glu Glu Leu Glu Glu Ile Ala Ser Glu Asn Ser Asp Cys 260 265 270 Ile Phe Pro Ser Ala Pro Asp Val Lys Ala 275 280 <210> 1363 <211> 334 <212> PRT <213> Homo sapiens <400> 1363 Thr Pro Arg Thr Pro Glu Pro His Lys Pro Gly Leu Ala Met Lys Pro 10

Gly Phe Ser Pro Arg Gly Gly Gly Phe Gly Gly Arg Gly Gly Phe Gly

Asp Arg Gly Gly Arg Gly Arg Gly Gly Phe Gly Gly Gly Arg Gly

Arg Gly Gly Phe Arg Gly Arg Gly Gly Gly Gly Gly Gly

65 65	GIY	GIY	GIY	GIĀ	70	GIĄ	Arg	GTĀ	GIÀ	75	GIĀ	Phe	His	ser	80 GTA
Gly	Asn	Arg	Gly	Arg 85	Gly	Arg	Gly	Gly	Lys 90	Arg	Gly	Asn	Gln	Ser 95	Gly
Lys	Asn	Val	Met 100	Val	Glu	Pro	His	Arg 105	His	Glu	Gly	Val	Phe 110	Ile	Cys
Arg	Gly	Lys 115	Glu	Asp	Ala	Leu	Val 120	Thr	ŗàa	Asn	Leu	Val 125	Pro	Gly	Glu
Ser	Val 130	Tyr	Gly	Glu	Lys	Arg 135	Val	Ser	Ile	Ser	Glu 140	Gly	Asp	Asp	Lys
Ile 145	Glu	Tyr	Arg	Ala	Trp 150	Asn	Pro	Phe	Arg	Ser 155	Lys	Leu	Ala	Ala	Ala 160
Ile	Leu	Gly	Gly	Val 165	Asp	Gln	Ile	His	Ile 170	Lys	Pro	Gly	Ala	Lys 175	Val
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		195					200			Val		205			
	210					215				Lys	220				
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				245					250	Ala				255	
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		275					280			Asp		285			
	290					295				Met	300				
305					310					Tyr 315				His	Ala 320
Val	Val	Val		Val 325	Tyr	Arg	Pro	Pro	Pro	Lys	Val	Lys	Asn		

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1416

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	-		Glu	Lys	Ser	Glv	Ara	Ala	Ala	Glu	Ara	Pro	Glv	Ara	Gly
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Pro	Gly	Arg	Glv	Ala	His	Ser	Arg	Pro	Thr	Ala	Pro	Arg	Glu	Arg	Ala
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Pro	Arq	Ser	Pro	Ala	Pro	Ser	Pro	Pro	Glv	Met	Glv	Arg	Ala	Ala	Ala
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Ala	Glu	Ala	Pro	Ala	Trp	Pro	Gly	Arg	Thr	Arg	Pro	Glu	Ala	Glu	Gl
	50				_	55	_	•			60				
Arg	Ala	Arg	Ala	Gln	Leu	Pro	Gly	His	Gln	Ile	Gly	Ala	Arq	Arg	Ala
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Sly	Gly	Pro	Arg	Ala	Gly	Leu	Glu	Met	Ser	Trp	Pro	Arg	Arg	Leu	Let
				85					90	_			_	95	
Leu	Arg	Tyr	Leu	Phe	Pro	Ala	Leu	Leu	Leu	His	Gly	Leu	Gly	Glu	Gly
			100					105			_		110		
Ser	Ala	Leu	Leu	His	Pro	Asp	Ser	Arg	Ser	His	Pro	Arg	Ser	Leu	Gli
		115					120					125			
Lys	Ser	Ala	Trp	Arg	Ala	Phe	Lys	Glu	Ser	Gln	Cys	His	His	Met	Let
	130					135					140				
.ys	His	Leu	His	Asn	Gly	Ala	Arg	Ile	Thr	Val	Gln	Met	Pro	Pro	Thi
45					150					155					160
le	Glu	Gly	His	Trp	Val	Ser	Thr	Gly	Cys	Glu	Val	Arg	Ser	Gly	Pro
•		-		165				-	170					175	
lu	Phe	Ile	Thr	Arg	Ser	Tyr	Arg	Phe	Tyr	His	Asn	Asn	Thr	Phe	Lys
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Ala Tyr Gln Phe Tyr Tyr Gly Ser Asn Arg Cys Thr Asn Pro Thr Tyr

		195					200					205			
Thr	Leu 210	Ile	Ile	Arg	Gly	Lys 215	Ile	Arg	Leu	Arg	Gln 220	Ala	Ser	Trp	Ile
Ile 225	Arg	Gly	Gly	Thr	Glu 230	Ala	Asp	Tyr	Gln	Leu 235	His	Asn	Val	Gln	Val 240
Ile	Cys	His	Thr	Glu 245	Ala	Val	Ala	Glu	Lys 250	Leu	Gly	Gln	Gln	Val 255	Asn
Arg	Thr	Cys	Pro 260	Gly	Phe	Leu	Ala	Asp 265	Gly	Gly	Pro	Trp	Val 270	Gln	Asp
Val	Ala	Туг 275	Asp	Leu	Trp	Arg	Glu 280	Glu	Asn	Gly	Cys	Glu 285	Cys	Thr	Lys
Ala	Val 290	Asn	Phe	Ala	Met	His 295	Glu	Leu	Gln	Leu	Ile 300	Arg	Val	Glu	Lys
Gln 305	Tyr	Leu	His	His	Asn 310	Leu	Asp	His	Leu	Val 315	Glu	Glu	Leu	Phe	Leu 320
Gly	Asp	Ile	His	Thr 325	Asp	Ala	Thr	Gln	Arg 330	Met	Phe	Tyr	Arg	Pro 335	Ser
Ser	Tyr	Gln	Pro 340	Pro	Leu	Gln	Asn	Ala 345	Lys	Asn	His	Asp	His 350	Ala	Cys
Ile	Ala	Cys 355	Xaa	Ile	Ile	Туг	Arg 360	Ser	Asp	Glu	His	His 365	Pro	Pro	Ile
Leu	Pro 370	Pro	Lys	Ala _.	Asp	Leu 375	Thr	Ile	Gly	Leu	His 380	Gly	Glu	Trp	Val
Ser 385	Gln	Arg	Cys	Glu	Val 390	Arg	Pro	Glu	Val	Leu 395	Phe	Leu	Thr	Arg	His 400
Phe	Ile	Phe	His	Asp 405	Asn	Asn	Asn	Thr	Trp 410	Glu	Gly	His	Tyr	Tyr 415	His
Tyr	Ser	Asp	Pro 420	Val	Cys	Lys	His	Pro 425	Thr	Phe	Ser	Ile	Tyr 430	Ala	Arg
Gly	Arg	Tyr 435	Ser	Arg	Gly	Val	Leu 440	Ser	Ser	Arg	Val	Met 445	Gly	Gly	Thr
Glu	Phe 450	Val	Phe	Lys	Val	Asn 455	His	Met	Lys	Val	Thr 460	Pro	Met	Asp	Ala
Ala	Thr	Ala	Ser	Leu	Leu	Asn	Val	Phe	Asn	Gly	Asn	Glu	Cys	Gly	Ala

465 470 475 480 Glu Gly Ser Trp Gln Val Gly Ile Gln Gln Asp Val Thr His Thr Asn 485 490 Gly Cys Val Ala Leu Gly Ile Lys Leu Pro His Thr Glu Tyr Glu Ile 505 Phe Lys Met Glu Gln Asp Ala Arg Gly Arg Tyr Leu Leu Phe Asn Gly 520 Gln Arg Pro Ser Asp Gly Ser Ser Pro Asp Arg Pro Glu Lys Arg Ala 535 Thr Ser Tyr Gln Met Pro Leu Val Gln Cys Ala Ser Ser Ser Pro Arg Ala Glu Asp Leu Ala Glu Asp Ser Gly Ser Ser Leu Tyr Gly Arg Ala 565 Pro Gly Arg His Thr Trp Ser Leu Leu Leu Ala Ala Leu Ala Cys Leu Val Pro Leu Leu His Trp Asn Ile Arg Arg 600 <210> 1365 <211> 158 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (26) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (40) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (78) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (98)

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Cys Thr Phe Thr Leu Leu Asn Lys Ala Xaa Ser Phe Phe Ser Leu Ser
                                 25
Val His Val Ser Phe Thr His Xaa Gly Gln Leu Pro His His Phe Phe
Gly Val Ala Trp Gln Glu Pro Gln Val Leu His Leu Gly Glu Pro Asp
Arg Arg Leu Gln Lys Arg Ile Lys Ala Ile Lys Leu Gln Xaa Ile Leu
 65
                     70
Gln Met Glu Pro Gln Met Ser Ser Ala His Gly Phe Tyr Arg Gly Pro
                 85
Leu Xaa Gln Pro Ala Gly Pro Ser Ile Thr Leu Glu Asn Ser Pro Leu
                                105
Glu Asp Thr Lys Leu Gln Gly Pro Phe Phe Thr Pro Asn Gln Glu
       115
                                                125
Val Ala Arg Thr Asp Cys His Xaa Val Pro Asn Ser Xaa Xaa Gly Cys
Pro Val Leu Glu Ala Gly Phe Arg Gly Gly Ala Gln Leu Gly
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Ile Gln Gly Ser Leu Gly Arg Leu Ser Ser Ala Val Pro Gly Ser Gly
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Ala Glu Leu Ser Pro Val Pro Asn Thr Asp Gly Thr Met Asn Ser Gly
                             40
His Ser Phe Ser Gln Thr Pro Ser Ala Ser Phe His Gly Ala Gly Gly
     50
Gly Trp Gly Arg Pro Arg Ser Phe Pro Arg Ala Pro Thr Val His Gly
Gly Ala Gly Gly Ala Arg Ile Ser Leu Ser Phe Thr Thr Arg Ser Cys
                 85
Pro Pro Pro Gly Gly Ser Trp Gly Ser Gly Arg Ser Ser Pro Leu Leu
            100
                                105
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Gly	Gly	Asn 115	Gly	Lys	Ala	Thr	Met 120	Gln	Asn	Leu	Asn	Asp 125	Arg	Leu	Ala
Ser	Tyr 130	Leu	Glu	Lys	Val	Arg 135	Ala	Leu	Glu	Glu	Ala 140	Asn	Met	Lys	Leu
Glu 145	Ser	Arg	Ile	Leu	Lys 150	Trp	His	Gln	Gln	Arg 155	Asp	Pro	Gly	Ser	Lys 160
Lys	Asp	Tyr	Ser	Gln 165	Tyr	Glu	Glu	Asn	Ile 170	Thr	His	Leu	Gln	Glu 175	Gln
Ile	Val	Asp	Gly 180	Lys	Met	Thr	Asn	Ala 185	Gln	Ile	Ile	Leu	Leu 190	Ile	Asp
		195				Asp	200					205			
His	Ser 210	Phe	Lys	Lys	Asp	Leu 215	Glu	Ile	Glu	Val	Xaa 220	Gly	Leu	Arg	Arg
Thr 225	Leu	Asp	Asn	Leu	Thr 230	Ile	Val	Thr	Thr	Asp 235	Leu	Glu	Gln	Glu	Val 240
	_			245		Leu			250	_	_			255	
			260			Val		265	-				270		
Val	Asp	Thr 275	Gly	Pro	Arg	Glu	Asp 280	Leu	Ile	Lys	Val	Leu 285	Glu	Asp	Met
	290					11e 295			_		300				
305		_			310	Ser				315					320
				325		Arg			330					335	
Thr	Phe	Gln	Ala 340	Leu	Glu	Ile	Asp	Leu 345	Gln	Xaa	Gln	Tyr	Ser 350	Thr	Lys
Ser	Ala	Leu 355	Glu	Asn	Met	Leu	Ser 360	Glu	Thr	Gln [·]	Ser	Arg 365	Tyr	Ser	Cys
Lys	Leu 370	Gln	Asp	Met	Gln	Glu 375	Ile	Ile	Ser	His	Tyr 380	Glu	Glu	Glu	Leu

Thr Gln Leu Arg His Glu Leu Glu Arg Gln Asn Asn Glu Tyr Gln Val

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385
Leu Leu Gly Ile Lys Thr His Leu Glu Lys Glu Ile Thr Thr Tyr Arg
Arg Leu Leu Glu Gly Glu Ser Glu Gly Thr Arg Glu Glu Ser Lys Ser
Ser Met Lys Val Ser Ala Thr Pro Lys Ile Lys Ala Ile Thr Gln Glu
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                             440
                                                445
Thr Ile Asn Gly Arg Leu Val Leu Cys Gln Val Asn Glu Ile Gln Lys
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His Ala
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1423

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Gln Gly Trp Ser Trp Ala Gly Ile Pro Ser Ser Ala Ala Ala Gln Arg
35 40 45

Ala Gly Pro Pro Ala Gly Ala Leu Glu Ala Leu Ser Pro Gly Gly Ala 50 55 60

Arg Ala His Ala Glu Arg Arg Gly Glu Met Arg Ala Thr Pro Leu Ala 65 70 75 80

Ala Pro Ala Gly Ser Leu Ser Arg Lys Lys Arg Leu Glu Leu Asp Asp 85 90 95

Asn Leu Asp Thr Glu Arg Pro Val Gln Lys Arg Ala Arg Ser Gly Pro 100 105 110

Gln Pro Arg Leu Pro Pro Cys Leu Leu Pro Leu Ser Pro Pro Thr Ala 115 120 125

Pro Asp Arg Ala Thr Ala Val Xaa Thr Xaa Ser Arg Xaa Xaa Xaa Tyr 130 140

Val Leu Leu Glu Ala Arg Arg Xaa Ala 145 150

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Val	. Thr	Pro	20		Val	Asn	Glu	Val 25		Pro	Ile	Asn	Lys 30	_	Glu
Glu	Gln	Ile 35		Phe	Glu	Leu	Val 40		Lys	Leu	Phe	Gln 45		Gln	Leu
Val	Leu 50		Thr	Arg	Суз	Leu 55	Glu	Cys	Glu	Ser	Leu 60	Thr	Glu	Arg	Arg
Glu 65		Phe	Gln	Asp	Ile 70	Ser	Val	Pro	Val	Gln 75	Glu	Asp	Glu	Leu	Ser 80
Lys	Val	Glu	Glu	Ser 85	Ser	Glu	Ile	Ser	Pro 90	Glu	Pro	Lys	Thr	Glu 95	Met
Lys	Thr	Leu	Arg 100	Trp	Ala	Ile	Ser	Gln 105	Phe	Ala	Ser	Val	Glu 110	Arg	Ile
Val	Gly	Glu 115	Asp	Lys	Tyr	Phe	Cys 120	Glu	Asn	Cys	His	His 125	Tyr	Thr	Glu
Ala	Glu 130	Arg	Ser	Leu	Leu	Phe 135	Asp	Lys	Met	Pro	Glu 140	Val	Ile	Thr	Ile
His 145	Leu	Lys	Cys	Phe	Ala 150	Ala	Ser	Gly	Leu	Glu 155	Phe	Asp	Cys	туг	Gly 160
Gly	Gly	Leu	Ser	Lys 165	Ile	Asn	Thr	Pro	Leu 170	Leu	Thr	Pro	Leu	Lys 175	Leu
Ser	Leu	Glu	Glu 180	Trp	Ser	Thr	Lys	Pro 185	Thr	Asn	Asp	Ser	Туг 190	Gly	Leu
Phe	Ala	Val 195	Val	Met	His	Ser	Gly 200	Ile	Thr	Ile	Ser	Ser 205	Gly	His	Tyr
Thr	Ala 210	Ser	Val	Lys	Val	Thr 215	Asp	Leu	Asn'	Ser	Leu 220	Glu	Leu	Asp	Lys
Gly 225	Asn	Phe	Val	Val	Asp 230	Gln	Met	Суз	Glu	Ile 235	Gly	Lys	Pro	Glu	Pro 240
Leu	Asn	Glu	Glu	Glu 245	Ala	Arg	Gly		Val 250	Glu	Asn	Tyr	Asn	Asp 255	Glu
Glu	Val	Ser	Ile	Arg	Val	Gly	Glv	Asn	Thr	Gln	Pro	Ser	I.vs	Va 1	T.en

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1425

260 265 270 Asn Lys Lys Asn Val Glu Ala Ile Gly Leu Leu Gly Gly Gln Lys Ser Lys Ala Asp Tyr Glu Leu Tyr Asn Lys Ala Ser Asn Pro Asp Lys Val 295 Ala Ser Thr Ala Phe Ala Glu Asn Arg Asn Ser Glu Thr Ser Asp Thr Thr Gly Thr His Glu Ser Asp Arg Asn Lys Glu Ser Ser Asp Gln Thr 325 330 Gly Ile Asn Ile Ser Gly Phe Glu Asn Lys Ile Ser Tyr Val Val Gln 345 Ser Leu Lys Glu Tyr Glu Gly Lys Trp Leu Leu Phe Asp Asp Ser Glu 360 Val Lys Val Thr Glu Glu Lys Asp Phe Leu Asn Ser Leu Ser Pro Ser 375 Thr Ser Pro Thr Ser Thr Pro Tyr Leu Leu Phe Tyr Lys Lys Leu 390 <210> 1369 <211> 260 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (3) <223> Xaa equals any of the naturally occurring L-amino acids Val Phe Xaa Ser Phe Phe Ala Glu Lys Glu Gln Glu Ala Ile Glu His Ile Asp Glu Val Gln Asn Glu Ile Asp Arg Leu Asn Glu Gln Ala Ser Glu Glu Ile Leu Lys Val Glu Gln Lys Tyr Asn Lys Leu Arg Gln Pro Phe Phe Gln Lys Arg Ser Glu Leu Ile Ala Lys Ile Pro Asn Phe 55

Trp 65	Val	Thr	Thr	Phe	Val 70	Asn	His	Pro	Gln	Val 75	Ser	Ala	Leu	Leu	G1 ₃
Glu	Glu	Asp	Glu	Glu 85	Ala	Leu	His	Tyr	Leu 90	Thr	Arg	Val	Glu	Val 95	Thi
Glu	Phe	Glu	Asp 100	Ile	Lys	Ser	Gly	Туr 105	Arg	Ile	Asp	Phe	Tyr 110	Phe	Ası
Glu	Asn	Pro 115	Tyr	Phe	Glu	Asn	Lys 120	Val	Leu	Ser	Lys	Glu 125	Phe	His	Let
Asn	Glu 130	Ser	Gly	Asp	Pro	Ser 135	Ser	Lys	Ser	Thr	Glu 140	Ile	Lys	Trp	Lys
Ser 145	Gly	Lys	Asp	Leu	Thr 150	Lys	Arg	ser	Ser	Gln 155	Thr	Gln	Asn	Lys	Ala 160
Ser	Arg	Lys	Arg	Gln 165	His	Glu	Glu	Pro	Glu 170	Ser	Phe	Phe	Thr	Trp 175	Phe
Thr	Asp	His	Ser 180	Asp	Ala	Gly	Ala	Asp 185	Glu	Leu	Gly	Glu	Val 190	Ile	Lys
Asp	Asp	Ile 195	Trp	Pro	Asn	Pro	Leu 200	Gln	Tyr	Tyr	Leu	Val 205	Pro	Asp	Met
Asp	Asp 210	Glu	Glu	Gly	Glu	Gly 215	Glu	Glu	Asp	Asp	Asp 220	Asp	Asp	Glu	Glu
Glu 225	Glu	Gly	Leu	Glu	Asp 230	Ile	Asp	Glu	Glu	Gly 235	Asp	Glu	Asp	Glu	Gly 240
Glu	Glu	Asp	Glu	Asp 245	Asp	Asp	Glu	Gly	Glu 250	Glu	Gly	Glu	Glu	Asp 255	Glu
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Glu Phe Leu Ser Val Thr Thr Ile Ala Val Met Ser Gly Arg Gly Lys

			20					25					30		
Gln	Gly	Gly 35	Lys	Ala	Arg	Ala	Lys 40	Ala	Lys	Ser	Arg	Ser 45	Ser	Arg	Ala
Gly	Leu 50	Gln	Phe	Pro	Val	Gly 55	Glu	Cys	Ile	Ala	Leu 60	Arg	Lys	Gly	Asn
Tyr 65	Ala	Glu	Arg	Val	Gly 70	Ala	Gly	Ala	Pro	Val 75	Tyr	Met	Ala	Ala	Val 80
Leu	Glu	Tyr	Leu	Thr 85	Ala	Glu	Ile	Leu	Glu 90	Leu	Ala	Gly	Asn	Ala 95	Ala
Arg	Asp	Asn	Lys 100	Lys	Thr	Arg	Ile	11e 105	Pro	Arg	His	Leu	Gln 110	Leu	Ala
Ile	Arg	Asn 115	Asp	Glu	Glu	Leu	Asn 120	Lys	Leu	Leu	Gly	Lys 125	Val	Thr	Ile
Ala	Gln 130	Gly	Gly	Val	Leu	Pro 135	Asn	Ile	Gln	Ala	Val 140	Leu	Leu	Pro	Lys
Lys 145	Thr	Glu	Ser	His	His 150	Lys	Ala	Lys	Gly	L ув 155					
)> 13 l> 14														
	?> PI														
<213	3> Ho	omo s	apie	ens							•				
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Phe 1	Pro	Gly	Arg	Thr 5	His	Ala	Leu	Cys	Arg 10	Gly	Ala	Ala	Ser	Arg 15	Gly
Leu	Leu	Cys	Lys 20	Trp	Ala	Pro	Trp	Pro 25	Ser	Ala	Pro	Val	Pro 30	Ala	Thr
Arg	Asp	Arg 35	Ala	Pro	Arg	Pro	Ala 40	Arg	Gly	Arg	Arg	Pro 45	Asp	Pro	Thr
Ser	Gln 50	Gln	Ala	Lys	Ala	Trp 55	Arg	Pro	Ser	Pro	Pro 60	Ala	Ala	Arg	Ser
Frp 65	Pro	Pro	Thr	Thr	Thr 70	Thr	Gly	Ala	Ala	Trp 75	Val	Pro	Leu	Pro	Ala 80
Thr	Ala	Pro	Ala	Ala 85	Val	Pro	Ser	Ala	Pro 90	Gly	Lys	Pro	Phe	Pro 95	Thr

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Pro Gln Val Ser Pro Arg Leu Thr Arg Val Ile Gly Gly Pro Ala Ser
            100
                                105
Phe Ser Gly Ser Pro Pro Ser Arg Ser Trp Pro Arg Cys Trp Ser Pro
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                            120
Gln Ser Thr Arg Asn Leu Pro Arg Pro Pro Ala Ala
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25

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35 40 45

Phe Gly Asp Val Ala Val His Phe Ser Arg Glu Glu Trp Gln Cys Leu 50 55 60

Asp Pro Gly Gln Arg Ala Leu Tyr Arg Glu Val Met Leu Glu Asn His 65 70 75 80

Ser Ser Val Ala Gly Leu Ala Gly Phe Leu Val Phe Lys Pro Glu Leu 85 90 95

Ile Ser Arg Leu Glu Gln Gly Glu Glu Pro Trp Val Leu Asp Leu Gln
100 105 110

Gly Ala Glu Gly Thr Glu Ala Pro Xaa Thr Ser Lys Thr Gly Glu Ala 115 120 125

<210> 1374

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<212> PRT

<213> Homo sapiens

<400> 1374

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1 5 10 15

Leu Gly Asn Asp Ser Gly Asp His Ser Asp His Met His Tyr Tyr Gln
20 25 30

Gly Lys Lys Tyr Phe Arg Asp Arg Gly Gly Gly Arg Asn Ser Asp 35 40 45

Trp Ser Ser Asp Thr Asn Arg Gln Gly Gln Gln Ser Ser Ser Asp Cys 50 55 60

Tyr Ile Tyr Asp Ser Ala Thr Gly Tyr Tyr Tyr Asp Pro Leu Ala Gly 65 70 75 80

Thr Tyr Tyr Asp Pro Asn Thr Gln Gln Glu Val Tyr Val Pro Gln Asp 85 90 95

Pro Gly Leu Pro Glu Glu Glu Glu Ile Lys Glu Lys Lys Pro Thr Ser

Gln Gly Lys Ser Ser Ser Lys Lys Glu Met Ser Lys Arg Asp Gly Lys

		11!	5				120)				125	5		
Glı	130		s Ası	Arq	g Gly	Val 135		Arg	g Phe	e Glr	140		n Ala	sei	Gl
Gl ₃ 145		B Ala	a Pro	Ala	150	Asp	Val	. Phe	. Lys	155		Leu	Pro	Pro	160
Val	. Lys	3 Lys	Glu	165		Pro	Pro	Pro	Pro 170		val	. Val	Asn	175	
Ile	Gly	/ Lev	180		Glu	Tyr	Gly	Gly 185		Ser	Asp	Туг	Glu 190		Glu
Glu	Glu	195		Gln	Thr	Pro	Pro 200		Gln	Pro	Arg	Thr 205		Gln	Pro
Gln	Lys 210		, Glu	Glu	Gln	Thr 215	Lys	Lys	Glu	Asn	Glu 220		Asp	Lys	Leu
Thr 225	Asp	Trp	Asn	Lys	Leu 230	Ala	Cys	Leu	Leu	Cys 235		Arg	Gln	Phe	Pro 240
Asn	Lys	Glu	Val	Leu 245		Lys	His	Gln	Gln 250	Leu	Ser	Asp	Leu	His 255	Lys
Gln	Asn	Leu	Glu 260		His	Arg	Lys	Ile 265	Lys	Gln	Ser	Glu	Gln 270	Glu	Leu
Ala	Tyr	Leu 275		Arg	Arg	Glu	Arg 280	Glu	Gly	Lys	Phe	Lys 285	Gly	Arg	Gly
Asn	Asp 290	Arg	Arg	Glu	Lys	Leu 295	Gln	Ser	Phe	Asp	Ser 300	Pro	Glu	Arg	Lys
Arg 305	Ile	Lys	Tyr	Ser	Arg 310	Glu	Thr	Asp	Ser	Asp 315	Arg	Lys	Leu	Val	Asp 320
Çys	Glu	Asp	Ile	Asp 325	Thr	Ser	Ser	Lys	Gly 330	Gly	Cys	Val	Gln	Gln 335	Ala
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la	Ser 370	Gly	Arg	Thr	Ser	Lys 375	Arg	Gln	Ser	Asn	Glu 380	Thr	Tyr	Arg	Asp
la	Val	Ara	Ara	Val	Met	Phe	Δ 1.a	Ara	ጥህም	T.ve	Gl.	Len	200		

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135

Lys Ala Lys Thr Arg Glu His Phe Gly Glu Glu Gly Xaa Gln Val Arg 145 150 155 160

Xaa Trp Xaa Pro Leu Ile Gln

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<212> PRT

<213> Homo sapiens

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Pro Ser Arg Gly Arg Pro Pro Lys Leu Gln Arg Asn Ser Arg Gly Gly 35 40 45

Gln Gly Arg Gly Val Glu Lys Pro Pro His Leu Ala Ala Leu Ile Leu
50 60

Ala Arg Gly Gly Ser Lys Gly Ile Pro Leu Lys Asn Ile Lys His Leu 65 70 75 80

Ala Gly Val Pro Leu Ile Gly Trp Val Leu Arg Ala Ala Leu Asp Ser 85 90 95

Gly Ala Phe Gln Ser Val Trp Val Ser Thr Asp His Asp Glu Ile Glu 100 105 110

Asn Val Ala Lys Gln Phe Gly Ala Gln Val His Arg Arg Ser Ser Glu 115 120 125

Val Ser Lys Asp Ser Ser Thr Ser Leu Asp Ala Ile Ile Glu Phe Leu 130 135 140

Asn Tyr His Asn Glu Val Asp Ile Val Gly Asn Ile Gln Ala Thr Ser 145 150 155 160

Pro Cys Leu His Pro Thr Asp Leu Gln Lys Val Ala Glu Met Ile Arg 165 170 175

Glu Glu Gly Tyr Asp Ser Val Phe Ser Val Val Arg Arg His Gln Phe 180 185 190

Arg	Trp	Ser 195	Glu	Ile	Gln	Lys	Gly 200	Val	Arg	Glu	Val	Thr 205	Glu	Pro	Let
Asn	Leu 210	Asn	Pro	Ala	Lys	Arg 215	Pro	Arg	Arg	Gln	Asp 220	Trp	Asp	Gly	Glu
Leu 225	Tyr	Glu	Asn	Gly	Ser 230	Phe	Tyr	Phe	Ala	Lys 235	Arg	His	Leu	Ile	G1:
Met	Gly	Tyr	Leu	Gln 245	Gly	Gly	Lys	Met	Ala 250	Tyr	Tyr	Glu	Met	Arg 255	Ala
Glu	His	Ser	Val 260	Asp	Ile	Asp	Val	Asp 265	Ile	Asp	Trp	Pro	Ile 270	Ala	Glu
Gln	Arg	Val 275	Leu	Arg	Tyr	Gly	Tyr 280	Phe	Gly	Lys	Glu	Lys 285	Leu	Lys	Glu
Ile	Lys 290	Leu	Leu	Val	Суѕ	Asn 295	Ile	Asp	Gly	Cys	Leu 300	Thr	Asn	Gly	His
Ile 305	туг	Val	Ser	Gly	Asp 310	Gln	Lys	Glu	Ile	Ile 315	Ser	Tyr	Asp	Val	Lys 320
Asp	Ala	Ile	Gly	Ile 325	Ser	Leu	Leu	Lys	Lys 330	Ser	Gly	Ile	Glu	Val 335	Arg
Leu	Ile	Ser	Glu 340	Arg	Ala	Cys	Ser	Lys 345	Gln	Thr	Leu	Ser	Ser 350	Leu	Lys
Leu	Asp	Суs 355	Lys	Met	Glu	Val	Ser 360	Val	Ser	Asp	Lys	Leu 365	Ala	Val	Va]
Asp	Glu 370	Trp	Arg	Lys	Glu	Met 375	Gly	Leu	Cys	Trp	Lys 380	Glu	Val	Ala	Туг
Leu 385	Gly	Asn	Glu	Val	Ser 390	Asp	Glu	Glu	Cys	Leu 395	Lys	Arg	Val	Gly	Let 400
Ser	Gly	Ala	Pro	Ala 405	Asp	Ala	Cys	Ser	Thr 410	Ala	Gln	Lys	Ala	Val 415	Gly
Tyr	Ile	Суз	Lys 420	Сув	Asn	Gly	Gly	Arg 425	Gly	Ala	Ile	Arg	Glu 430	Phe	Ala
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Суз	Leu	Leu	Leu 20	Pro	Leu	Leu	Leu	Leu 25	Gly	Gly	Trp	Lys	Arg 30	Trp	Ar
Arg	Gly	Arg 35	Ala	Ala	Arg	His	Val 40	Val	Ala	Val	Val	Leu 45	Gly	Asp	Va:
Gly	Arg 50	Ser	Pro	Arg	Met	Gln 55	Tyr	His	Ala	Leu	Ser 60	Leu	Ala	Met	His
Gly 65	Phe	Ser	Val	Thr	Leu 70	Leu	Gly	Phe	Суз	Asn 75	Ser	Lys	Pro	His	As _l
Glu	Leu	Leu	Gln	Asn 85	Asn	Arg	Ile	Gln	Ile 90	Val	Gly	Leu	Thr	Glu 95	Lei
Gln	Ser	Leu	Ala 100	Val	Gly	Pro	Arg	Val 105	Phe	Gln	Tyr	Gly	Val 110	Lys	Va:
Val	Leu	Gln 115	Ala	Met	Tyr	Leu	Leu 120	Trp	Lys	Leu	Met	Trp 125	Arg	Glu	Pro
Gly	Ala 130	туr	Ile	Phe	Leu	Gln 135	Asn	Pro	Pro	Gly	Leu 140	Pro	Ser	Ile	Ala
Val 145	Cys	Trp	Phe	Val	Gly 150	Суз	Leu	Суз	Gly	Ser 155	Lys	Leu	Val	Ile	Ası 160
Trp	His	Asn	туг	Gly 165	Tyr	Ser	Ile	Met	Gly 170	Leu	Val	His	Gly	Pro 175	Ası
His	Pro	Leu	Val 180	Leu	Leu	Ala	Lys	Trp 185	Tyr	Glu	Lys	Phe	Phe 190	Gly	Arg
Leu	Ser	His 195	Leu	Asn	Leu	Cys	Val 200	Thr	Asn	Ala	Met	Arg 205	Glu	Asp	Leu
Ala	Asp 210	Asn	Trp	His	Ile	Arg 215	Ala	Val	Thr	Val	Tyr 220	Asp	Lys	Pro	Ala
Ser	Dho	Dho	T.ve	Glu	Thr	Pro	T.en	Aen	T.011	Gln	Hie	Ara	T.Ou	Dho	Mot

225					230					235					240
Lys	Leu	Gly	Ser	Met 245	His	Ser	Pro	Phe	Arg 250	Ala	Arg	Ser	Glu	Pro 255	Glu
Asp	Pro	Val	Thr 260	Glu	Arg	Ser	Ala	Phe 265	Thr	Glu	Arg	Asp	Ala 270	Gly	Ser
Gly	Leu	Val 275	Thr	Arg	Leu	Arg	Glu 280	Arg	Pro	Ala	Leu	Leu 285	Val	Ser	Ser
Thr	Ser 290	Trp	Thr	Glu	Asp	G1u 295	Asp	Phe	Ser	Ile	Leu 300	Leu	Ala	Ala	Leu
Glu 305		Phe	Glu	Gln	Leu 310	Thr	Leu	Asp	Gly	His 315	Asn	Leu	Pro	Ser	Leu 320
Val	Cys	Val	Ile	Thr 325	Gly	Lys	Gly	Pro	Leu 330	Arg	Glu	Tyr	Tyr	Ser 335	Arg
Leu	Ile	His	Gln 340	Lys	His	Phe	Gln	His 345	Ile	Gln	Val	Суз	Thr 350	Pro	Trp
Leu	Glu	Ala 355	Glu	Asp	Tyr	Pro	Leu 360	Leu	Leu	Gly	Ser	Ala 365	Asp	Leu	Gly
Val	Cys 370	Leu	His	Thr	Ser	Ser 375	Ser	Gly	Leu	Asp	Leu 380	Pro	Met	Lys	Val
Val ⁻ 385	Asp	Met	Phe	Gly	Cys 390	Суз	Leu	Pro	Val	Cys 395	Ala	Val	Asn	Phe	Lys 400
Cys	Leu	His	Glu	Leu 405	Val	Lys	His	Glu	Glu 410	Asn	Gly	Leu	Val	Phe 415	Glu
Asp	Ser	Glu	G1u 420	Leu	Ala	Ala	Gln	Leu 425	Gln	Met	Leu	Phe	Ser 430	Asn	Phe
Pro	Asp	Pro 435	Ala	Gly	Lys	Leu	Asn 440	Gln	Phe	Arg	Lys	Asn 445	Leu	Arg	Glu
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Glu	газ	ATA	Ata		Ala	GIÀ	гÃ2	ser		ren	Ala	TTE	var		гÃ2
1				5					10					15	
Val .	Asn	Asn	Glu	Gly	Glu	Gly	Asp	Pro	Phe	Tyr	Glu	Val	Leu	Gly	Leu
			20					25					30		
Val	Thr	Leu	Glu	Asp	Val	Tle	Glu	Glu	Tle	Tle	I.vs	Ser	Glu	Tle	Leu
		35					40				-,,	45			
Asp		Ser	Asp	Met	Tyr	Thr	Asp	Asn	Arg	Ser	Arg	Lys	Arg	Val	Ser
	50					55					60				
Glu	Luc) en	Luc	n.ca	Aco	Bho	805	ת 1 ת	Dho	T ****	λαν	בות	λεη) co	Gl.
65	гуэ	ASII	гуз	ALG	70	Pile	ser	ALG	Pile	75	Asp	WTG	wsb	ASII	80
0.5					, 0					,,,					-
Leu	Lys	Val	Lys	Ile	Ser	Pro	Gln	Leu	Leu	Leu	Ala	Xaa	His	Arg	Phe
				85					90					95	
				1								_			
Leu .	Ala	Thr		Val	Ser	Gln	Phe		Pro	Ser	Leu	Ile		Glu	Lys
			100					105					110		
Ile	Leu	Leu	Arq	Leu	Leu	Lvs	Tvr	Pro	Asp	Val	Ile	Gln	Glu	Leu	Lvs
		115	5			-2-	120					125			-1-
Phe .	qzA	Glu	His	Asn	Lys	Tyr	Tyr	Ala	Arg	His	Tyr	Leu	Tyr	Thr	Arg
	130					135					140				
Asn :	Tuc	Pro	21-	Acn	@17×	Pho	Tla	Tou	Tla	Len	Gln	Glw	T.vo	₹7 3 3	Glu
145	пåз	FIO	AIG	vsb	150	FIIC	116	Ten	116	155	GIII	GLY	nys	Val	160
Val	Glu	Ala	Gly	Lys	Glu	Asn	Met	Lys	Phe	Glu	Thr	Gly	Ala	Phe	Ser
				165					170					175	
	_				-				_						
Tyr	Tyr	Gly		Met	Ala	Leu	Thr		Val	Pro	Ser	Asp		Ser	Pro
			180					185					190		
Ala	His	Pro	Thr	Pro	Lev	Ser	Aro	Ser	Ala	Ser	Lev	Ser	Tvr	Pro	Asp
		195					200					205	-1-		
Arg '	Thr	Asp	Val	Ser	Thr	Ala	Ala	Thr	Leu	Ala	Gly	Ser	Ser	Asn	Gln

Phe Gly Ser Ser Val Leu Gly Gln Tyr Ile Ser Asp Phe Ser Val Arg 225 230 235 240

Ala Leu Val Asp Leu Gln Tyr Ile Lys Ile Thr Arg Gln Gln Tyr Gln
245 250 255

Asn Gly Leu Leu Ala Ser Arg Met Glu Asn Ser Pro Gln Phe Pro Ile 260 265 270

Asp Gly Cys Thr Thr His Met Glu Asn Leu Ala Glu Lys Ser Glu Leu 275 280 285

Pro Val Val Asp Glu Thr Thr Leu Leu Asn Glu Arg Asn Ser Leu 290 295 300

Leu His Lys Ala Ser His Glu Asn Ala Ile 305 310

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20 25 30

His Ser Tyr Ile Asp Tyr Glu Ile Cys Ile His Thr Asn Ser Met Cys
35 40 45

Phe Thr Met Lys Thr Ser Cys Val Arg Arg Arg Tyr Arg Glu Phe Val 50 55 60

Trp Leu Arg Gln Arg Leu Gln Ser Asn Ala Leu Leu Val Gln Leu Pro 65 70 75 80

Glu Leu Pro Ser Lys Asn Leu Phe Phe Asn Met Asn Asn Arg Gln His 85 90 95

Val Asp Gln Arg Arg Gln Gly Leu Gly Asn Phe Leu Arg Lys Val Leu 100 105 110

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Ser His Leu

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Pro	Leu	Ala 35	Phe	Ser	Ser	Val	Glu 40	Thr	Met	Glu	Gly	Pro 45	Pro	Arg	Arg
Thr	Суз 50	Arg	Ser	Pro	Glu	Pro 55	Gly	Pro	Ser	Ser	Ser 60	Ile	Gly	Ser	Pro
Gln 65	Ala	Ser	Ser	Pro	Pro 70	Arg	Pro	Asn	His	Tyr 75	Leu	Leu	Ile	Asp	Thr 80
Gln	Gly	Val	Pro	Tyr 85	Thr	Val	Leu	Val	Asp 90	Glu	Glu	Ser	Gln	Arg 95	Glu
Pro	Gly	Ala	Ser 100	Gly	Ala	Pro	Gly	Gln 105	Lys	Lys	Cys	Tyr	Ser 110	Cys	Pro
val	Cys	Ser 115	Arg	Val	Phe	Glu	Tyr 120	Met	Ser	Tyr	Leu	Gln 125	Arg	His	Ser
Ile	Thr 130	His	Ser	Glu	Val	Lys 135	Pro	Phe	Glu	Суз	Asp 140	Ile	Cys	Gly	Lys
Ala 145	Phe	Lys	Arg	Ala	Ser 150	His	Leu	Ala	Arg	His 155	His	Ser	Ile	His	Leu 160
Ala	Gly	Gly	Gly	Arg 165	Pro	His	Gly	Суз	Pro 170	Leu	Cys	Pro	Arg	Arg 175	Phe
Arg	Asp	Ala	Gly 180	Glu	Leu	Ala	Gln	His 185	ser	Arg	Val	His	Ser 190	Gly	Glu
Arg	Pro	Phe 195	Gln	Суз	Pro	His	Cys 200	Pro	Arg	Arg	Phe	Met 205	Glu	Gln	Asn
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Cys	Ile	Суз	Ile 20	Gln	Arg	Gln	Val	Pro 25	Pro	Val	Pro	Ala	Ala 30	Arg	Ala
Pro	Gln	Ser 35	Arg	Thr	Arg	Ser	Ala 40	Gln	Ala	Lys	Leu	Ala 45	Leu	Thr	Met
Pro	Val 50	Lys	Gly	Gly	Thr	Lys 55	Cys	Ile	Lys	Tyr	Leu 60	Leu	Phe	Gly	Phe
Asn 65	Phe	Ile	Phe	Trp	Leu 70	Ala	Gly	Ile	Ala	Val 75	Leu	Ala	Ile	Gly	Leu 80
Trp	Leu	Arg	Phe	Asp 85	Ser	Gln	Thr	Lys	Ser 90	Ile	Phe	Glu	Gln	Glu 95	Thr
Asn	Asn	Asn	Asn 100	Ser	Ser	Phe	туг	Thr 105	Gly	Val	Tyr	Ile	Leu 110	Ile	Gly
Ala	Gly	Ala 115	Leu	Met	Met	Leu	Val 120	Gly	Phe	Leu	Gly	Cys 125	Суз	Gly	Ala
Val	Gln 130	Glu	Ser	Gln	Cys	Met 135	Leu	Gly	Leu	Phe	Phe 140	Gly	Phe	Leu	Leu
Val 145	Ile	Phe	Ala	Ile	Glu 150	Ile	Ala	Ala	Ala	Ile 155	Trp	Gly	Tyr	Ser	Ніs 160
Lys	Asp	Glu	Val	Ile 165	Lys	Glu	Val	Gln	Glu 170	Phe	туг	Lys	Asp	Thr 175	Tyr
Asn	Lys	Leu	Lys 180	Thr	Lys	Asp	Glu	Pro 185	Gln	Arg	Glu	Thr	Leu 190	Lys	Ala
Ile	His	Tyr 195	Ala	Leu	Asn	Cys	Cys 200	Gly	Leu	Ala	Gly	Gly 205	Val	Glu	Gln
Phe	Ile 210	Ser	Asp	Ile	Суз	Pro 215	Lys	Lys	Asp	Val	Leu 220	Glu	Thr	Phe	Thr

Val Lys Ser Cys Pro Asp Ala Ile Lys Glu Val Phe Asp Asn Lys Phe 225 230 235 His Ile Ile Gly Ala Val Gly Ile Gly Ile Ala Val Val Met Ile Phe 250 Gly Met Ile Phe Ser Met Ile Leu Cys Cys Ala Ile Arg Arg Asn Arg 265 Glu Met Val 275 <210> 1382 <211> 766 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (13) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (17) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (123) <223> Xaa equals any of the naturally occurring L-amino acids Pro Cys Trp Glu Leu Val Gly Pro Pro Gly Trp Gln Xaa Ile Arg Ala Xaa Pro Ala Thr Val His Arg Ala Glu Ile Leu Ser Phe Pro Arg Ser 25 Lys Thr Ser Glu Pro Ala Lys Arg Gly Arg Thr Ala Ser Ala Ala Met 40 Ala Leu Lys Asp Tyr Ala Leu Glu Lys Glu Lys Val Lys Lys Phe Leu Gln Glu Phe Tyr Gln Asp Asp Glu Leu Gly Lys Lys Gln Phe Lys Tyr 70 75 Gly Asn Gln Leu Val Arg Leu Ala His Arg Glu Gln Val Ala Leu Tyr

				85					90					95	
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Ile	Cys	Glu 115	Asn	Ala	Arg	Arg	Туг 120	Ala	Lys	Xaa	Phe	Ala 125	Asp	Ala	Val
Gln	Glu 130	Leu	Leu	Pro	Gln	Tyr 135	Lys	Glu	Arg	Glu	Val 140	Val	Asn	Lys	Asp
Val 145	Leu	Asp	Val	Tyr	Ile 150	Glu	His	Arg	Leu	Met 155	Met	Glu	Gln	Arg	Ser 160
Arg	Asp	Pro	Gly	Met 165	Val	Arg	Ser	Pro	Gln 170	Asn	Gln	Туг	Pro	Ala 175	Glu
Leu	Met	Arg	Arg 180	Phe	Glu	Leu	Tyr	Phe 185	Gln	Gly	Pro	Ser	Ser 190	Asn	Lys
Pro	Arg	Val 195	Ile	Arg	Glu	Val	Arg 200	Ala	Asp	Ser	Val	Gly 205	Lys	Leu	Val
Thr	Val 210	Arg	Gly	Ile	Val	Thr 215	Arg	Val	Ser	Glu	Val 220	Lys	Pro	Lys	Met
Val 225	Val	Ala	Thr	Tyr	Thr 230	Cys	Asp	Gln	Cys	Gly 235	Ala	Glu	Thr	Tyr	Gln 240
Pro	Ile	Gln	Ser	Pro 245	Thr	Phe	Met	Pro	Leu 250	Ile	Met	Cys	Pro	ser 255	Gln
Glu	Cys	Gln	Thr 260	Asn	Arg	Ser	Gly	Gly 265	Arg	Leu	Tyr	Leu	Gln 270	Thr	Arg
Gly	Ser	Arg 275	Phe	Ile	Lys	Phe	Gln 280	Glu	Met	Lys	Met	Gln 285	Glu	His	Ser
Asp	Gln 290	Val	Pro	Val	Gly	Asn 295	Ile	Pro	Arg	Ser	Ile 300	Thr	Val	Leu	Val
G1u 305	Gly	Glu	Asn	Thr	Arg 310	Ile	Ala	Gln	Pro	Gly 315	Asp	His	Val	Ser	Val 320
Thr	Gly	Ile	Phe	Leu 325	Pro	Ile	Leu	Arg	Thr 330	Gly	Phe	Arg	Gln	Val 335	Val
Gln	Gly	Leu	Leu 340	Ser	Glu	Thr	Tyr	Leu 345	Glu	Ala	His	Arg	Ile 350	Val	Lys
Met	Asn	Lys	Ser	Glu	Asp	Asp	Glu	Ser	Gly	Ala	Gly	Glu	Leu	Thr	Arg

355 360 365 Glu Glu Leu Arg Gln Ile Ala Glu Glu Asp Phe Tyr Glu Lys Leu Ala Ala Ser Ile Ala Pro Glu Ile Tyr Gly His Glu Asp Val Lys Lys Ala Leu Leu Leu Leu Val Gly Gly Val Asp Gln Ser Pro Arg Gly Met Lys Ile Arg Gly Asn Ile Asn Ile Cys Leu Met Gly Asp Pro Gly Val Ala Lys Ser Gln Leu Leu Ser Tyr Ile Asp Arg Leu Ala Pro Arg Ser 440 Gln Tyr Thr Thr Gly Arg Gly Ser Ser Gly Val Gly Leu Thr Ala Ala Val Leu Arg Asp Ser Val Ser Gly Glu Leu Thr Leu Glu Gly Gly Ala Leu Val Leu Ala Asp Gln Gly Val Cys Cys Ile Asp Glu Phe Asp Lys 490 Met Ala Glu Ala Asp Arg Thr Ala Ile His Glu Val Met Glu Gln Gln 500 505 Thr Ile Ser Ile Ala Lys Ala Gly Ile Leu Thr Thr Leu Asn Ala Arg 520 Cys Ser Ile Leu Ala Ala Ala Asn Pro Ala Tyr Gly Arg Tyr Asn Pro Arg Arg Ser Leu Glu Gln Asn Ile Gln Leu Pro Ala Ala Leu Leu Ser Arg Phe Asp Leu Leu Trp Leu Ile Gln Asp Arg Pro Asp Arg Asp Asn 570 Asp Leu Arg Leu Ala Gln His Ile Thr Tyr Val His Gln His Ser Arg 580 585 Gln Pro Pro Ser Gln Phe Glu Pro Leu Asp Met Lys Leu Met Arg Arg 595 600 Tyr Ile Ala Met Cys Arg Glu Lys Gln Pro Met Val Pro Glu Ser Leu Ala Asp Tyr Ile Thr Ala Ala Tyr Val Glu Met Arg Arg Glu Ala Trp

625					630					635					640
Ala	ser	Lys	Asp	Ala 645	Thr	Tyr	Thr	Ser	Ala 650	Arg	Thr	Leu	Leu	Ala 655	Ile
Leu	Arg	Leu	Ser 660	Thr	Ala	Leu	Ala	Arg 665	Leu	Arg	Met	Val	Asp 670	Val	Val
Glu	Lys	Glu 675	Asp	Val	Asn	Glu	Ala 680	Ile	Arg	Leu	Met	Glu 685	Met	Ser	Lys
Asp	Ser 690	Leu	Leu	Gly	Asp	Lys 695	Gly	Gln	Thr	Ala	Arg 700	Thr	Gln	Arg	Pro
Ala 705	Asp	Val	Ile	Phe	Ala 710	Thr	Val	Arg	Glu	Leu 715	Val	Ser	Gly	Gly	Arg 720
Ser	Val	Arg	Phe	Ser 725	Glu	Ala	Glu	Gln	Arg 730	Сув	Val	Ser	Arg	Gly 735	Phe
Thr	Pro	Ala	Gln 740	Phe	Gln	Ala	Ala	Leu 745	Asp	Glu	Tyr	Glu	Glu 750	Leu	Asn
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Pro	Asp	Суз	Thr 20	Arg	Ala	Met	Val	Gly 25	Arg	Arg	Ala	Leu	Ile 30	Val	Leu
Ala	His	Ser 35	Glu	Arg	Thr	Ser	Phe 40	Asn	Tyr	Ala	Met	Lys 45	Glu	Ala	Ala
Ala	Ala 50	Ala	Leu	Lys	Lys	Lys 55	Gly	Trp	Glu	Val	Val 60	Glu	Ser	Asp	Leu
Tyr 65	Ala	Met	Asn	Phe	Asn 70	Pro	Ile	Ile	Ser	Arg 75	Lys	Asp	Ile	Thr	Gly 80
Lys	Leu	Lys	Asp	Pro 85	Ala	Asn	Phe	Gln	Tyr 90	Pro	Ala	Glu	Ser	Val	Leu

Ala Tyr Lys Glu Gly His Leu Ser Pro Asp Ile Val Ala Glu Gln Lys 105 Lys Leu Glu Ala Ala Asp Leu Val Ile Phe Gln Phe Pro Leu Gln Trp 120 Phe Gly Val Pro Ala Ile Leu Lys Gly Trp Phe Glu Arg Val Phe Ile 135 Gly Glu Phe Ala Tyr Thr Tyr Ala Ala Met Tyr Asp Lys Gly Pro Phe 150 155 Arg Ser Lys Lys Ala Val Leu Ser Ile Thr Thr Gly Gly Ser Gly Ser Met Tyr Ser Leu Gln Gly Ile His Gly Asp Met Asn Val Ile Leu Trp 185 Pro Ile Gln Ser Gly Ile Leu His Phe Cys Gly Phe Gln Val Leu Glu 200 Pro Gln Leu Thr Tyr Ser Ile Gly His Thr Pro Ala Asp Ala Arg Ile 215 Gln Ile Leu Glu Gly Trp Lys Lys Arg Leu Glu Asn Ile Trp Asp Glu Thr Pro Leu Tyr Phe Ala Pro Ser Ser Leu Phe Asp Leu Asn Phe Gln Ala Gly Phe Leu Met Lys Lys Glu Val Gln Asp Glu Glu Lys Asn Lys 265 Lys Phe Gly Leu Ser Val Gly His His Leu Gly Lys Ser Ile Pro Thr 280 Asp Asn Gln Ile Lys Ala Arg Lys 295

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His Glu Arg Thr Pro Ser Arg Pro Gln Pro Asp Thr Pro Arg Gly Pro

Pro Val Ser Arg Gly Cys Ser Pro Arg His Gly Thr Gly Pro Arg Leu 20 25

Thr Met Ala Ala Ala Arg His Ser Thr Leu Asp Phe Met Leu Gly Ala

Lys Ala Asp Gly Glu Thr Ile Leu Lys Gly Leu Gln Ser Ile Phe Gln

Glu Gln Gly Met Ala Glu Ser Val His Thr Trp Gln Asp His Gly Tyr

	65					70					75					80
	Leu	Ala	Thr	Tyr	Thr 85	Asn	Lys	Asn	Gly	Ser 90	Phe	Ala	Asn	Leu	Arg 95	Ile
	Tyr	Pro	His	Gly 100	Leu	Val	Leu	Leu	Asp 105	Leu	Gln	Ser	туг	Asp 110	Gly	Asp
	Ala	Gln	Gly 115	Lys	Glu	Glu	Ile	Asp 120	Ser	Ile	Leu	Asn	Lys 125	Val	Glu	Glu
	Arg	Met 130	Lys	Glu	Leu	Ser	Gln 135	Asp	Ser	Thr	Gly	Arg 140	Val	Lys	Arg	Leu
	Pro 145	Pro	Ile	Val	Arg	Gly 150	Gly	Ala	Ile	Asp	Arg 155	Tyr	Trp	Pro	Thr	Ala 160
	Asp	Gly	Arg	Leu	Val 165	Glu	Tyr	Asp	Ile	Asp 170	Glu	Val	Val	Tyr	Asp 175	Glu
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•	Asn	Ile	Leu 195	Ile	Leu	Ser	Gly	Asp 200	Val	Asn	Leu	Ala	Glu 205	Ser	Asp	Leu
	Ala	Tyr 210	Thr	Arg	Ala	Ile	Met 215	Gly	Ser	Gly	Lys	Glu 220	Asp	Tyr	Thr	Gly
	Lys 225	Asp	Val	Leu	Ile	Leu 230	Gly	Gly	Gly	Asp	Gly 235	Gly	Ile	Leu	Cys	Glu 240
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•	Cys	Ile 290	Pro	Val	Leu	Lys	Arg 295	Tyr	Ala	Lys	Glu	Gly 300	Arg	Glu	Phe	Asp
	Tyr 305	Va1	Ile	Asn	Asp	Leu 310	Thr	Ala	Val	Pro	11e 315	Ser	Thr	Ser	Pro	Glu 320
(3lu	Asp	Ser	Thr	Trp 325	Glu	Phe	Leu	Arg	Leu 330	Ile	Leu	Asp	Leu	Ser 335	Met
1	jys	Val	Leu	Lys	Gln	Asp	Gly	Lys	Tyr	Phe	Thr	Gln	Gly	Asn	Cys	Val

340 345 350 Asn Leu Thr Glu Ala Leu Ser Leu Tyr Glu Glu Gln Leu Gly Arg Leu 360 Tyr Cys Pro Val Glu Phe Ser Lys Glu Ile Val Cys Val Pro Ser Tyr 375 Leu Glu Leu Trp Val Phe Tyr Thr Val Trp Lys Lys Ala Lys Pro <210> 1386 <211> 287 <212> PRT <213> Homo sapiens <400> 1386 Phe Asp Cys Arg Asp Val Ala Phe Thr Val Gly Glu Gly Glu Asp His Asp Ile Pro Ile Gly Ile Asp Lys Ala Leu Glu Lys Met Gln Arg Glu Glu Gln Cys Ile Leu Tyr Leu Gly Pro Arg Tyr Gly Phe Gly Glu Ala Gly Lys Pro Lys Phe Gly Ile Glu Pro Asn Ala Glu Leu Ile Tyr Glu 55 Val Thr Leu Lys Ser Phe Glu Lys Ala Lys Glu Ser Trp Glu Met Asp Thr Lys Glu Lys Leu Glu Gln Ala Ala Ile Val Lys Glu Lys Gly Thr Val Tyr Phe Lys Gly Gly Lys Tyr Met Gln Ala Val Ile Gln Tyr Gly 100 105 Lys Ile Val Ser Trp Leu Glu Met Glu Tyr Gly Leu Ser Glu Lys Glu 120 Ser Lys Ala Ser Glu Ser Phe Leu Leu Ala Ala Phe Leu Asn Leu Ala 130 135 Met Cys Tyr Leu Lys Leu Arg Glu Tyr Thr Lys Ala Val Glu Cys Cys Asp Lys Ala Leu Gly Leu Asp Ser Ala Asn Glu Lys Gly Leu Tyr Arg

Arg Gly Glu Ala Gln Leu Leu Met Asn Glu Phe Glu Ser Ala Lys Gly 185 Asp Phe Glu Lys Val Leu Glu Val Asn Pro Gln Asn Lys Ala Ala Arg 200 Leu Gln Ile Ser Met Cys Gln Lys Lys Ala Lys Glu His Asn Glu Arg Asp Arg Arg Tyr Thr Pro Thr Cys Ser Arg Ser Leu Gln Ser Arg Met Pro Arg Lys Arg Pro Ile Lys Gln Trp Ala Arg Arg Leu Gln Lys Gly 245 250 Ser Leu Met Lys Lys Glu Gln Thr Val Lys Gln Trp Lys Lys Arg Asn 265 Leu Arg Ala Thr Tyr Asp Ala Thr Pro Arg Arg Glu Glu Ser Gln 280 <210> 1387 <211> 206 <212> PRT <213> Homo sapiens

<400> 1387

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Leu Gly Ser Asn Thr Ala Pro Ala Leu Arg Val Met Val Gln Ala Trp
20 25 30

Tyr Met Asp Asp Ala Pro Gly Asp Pro Arg Gln Pro His Arg Pro Asp 35 40 45

Pro Gly Arg Pro Val Gly Leu Glu Gln Leu Arg Arg Leu Gly Val Leu 50 55 60

Tyr Trp Lys Leu Asp Ala Asp Lys Tyr Glu Asn Asp Pro Glu Leu Glu 65 70 . 75 80

Lys Ile Arg Arg Glu Arg Asn Tyr Ser Trp Met Asp Ile Ile Thr Ile 85 90 95

Cys Lys Asp Lys Leu Pro Asn Tyr Glu Glu Lys Ile Lys Met Phe Tyr 100 105 110

Glu Glu His Leu His Leu Asp Asp Glu Ile Arg Tyr Ile Leu Asp Gly 115 120 Ser Gly Tyr Phe Asp Val Arg Asp Lys Glu Asp Gln Trp Ile Arg Ile Phe Met Glu Lys Gly Asp Met Val Thr Leu Pro Ala Gly Ile Tyr His 150 155 Arg Phe Thr Val Asp Glu Lys Asn Tyr Thr Lys Ala Met Arg Leu Phe 165 170 Val Gly Glu Pro Val Trp Thr Ala Tyr Asn Arg Pro Ala Asp His Phe 185 Glu Ala Arg Gly Gln Tyr Val Lys Phe Leu Ala Gln Thr Ala <210> 1388 <211> 394 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (3) <223> Xaa equals any of the naturally occurring L-amino acids Phe His Xaa Ala Ala His Tyr Ser Leu Pro Asp Gly Arg His Gly Arg Leu Asp Ser Pro Thr Phe His Leu Thr Leu His Tyr Pro Thr Glu His 25 Val Gln Phe Trp Val Gly Ser Pro Ser Thr Pro Ala Gly Trp Val Arg 35 40 Glu Gly Asp Thr Val Gln Leu Cys Arg Gly Asp Gly Ser Pro Ser 55 Pro Glu Tyr Thr Leu Phe Arg Leu Gln Asp Glu Gln Glu Glu Val Leu 65 70 75

Asn Val Asn Leu Glu Gly Asn Leu Thr Leu Glu Gly Val Thr Arg Gly

Gln Ser Gly Thr Tyr Gly Cys Arg Val Glu Asp Tyr Asp Ala Ala Asp 100 105 110

Asp	Val	G1n 115	Leu	Ser	Lys	Thr	Leu 120	Glu	Leu	Arg	Val	Ala 125	Tyr	Leu	Asp
Pro	Leu 130	Glu	Leu	Ser	Glu	Gly 135	Lys	Val	Leu	Ser	Leu 140	Pro	Leu	Asn	Ser
Ser 145	Ala	Val	Val	Asn	Cys 150	Ser	Val	His	Gly	Leu 155	Pro	Thr	Pro	Ala	Leu 160
Arg	Trp	Thr	Lys	Asp 165	Ser	Thr	Pro	Leu	Gly 170	Asp	Gly	Pro	Met	Leu 175	Ser
Leu	Ser	Ser	Ile 180	Thr	Phe	Asp	Ser	Asn 185	Gly	Thr	Tyr	Val	Cys 190	Glu	Ala
		195			Pro		200					205			
	210				Pro	215					220				
225	_			_	Arg 230		_	-		235				-	240
				245	Asp				250					255	
			260		Ile		_	265					270		
		275			Thr		280				_	285			
	290				His	295					300				
305					Thr 310					315					320
				325	Leu				330					335	
			340		Gly			345					350		
		355			Glu		360					365			
Pro	Glu 370	Gln	Thr	Gly	Leu	Leu 375	Met	Gly	Gly	Ala	Ser 380	Gly	Gly	Ala	Arg

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Gly Gly Ser Gly Gly Phe Gly Asp Glu Cys 385 390

<210> 1389

<211> 264

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1389

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Leu Pro Pro Pro Thr Leu Ala Met Phe Leu Thr Arg Ser Glu Tyr Asp
20 25 30

Arg Gly Val Asn Thr Phe Ser Pro Glu Gly Arg Leu Phe Gln Val Glu 35 40 45

Tyr Ala Ile Glu Ala Ile Lys Leu Gly Ser Thr Ala Ile Gly Ile Gln
50 60

Thr Ser Glu Gly Val Cys Leu Ala Val Glu Lys Arg Ile Thr Ser Pro 65 70 75 80

Leu Met Glu Pro Ser Ser Ile Glu Lys Ile Val Glu Ile Asp Ala His
85 90 95

Ile Gly Cys Ala Met Ser Gly Leu Ile Ala Asp Ala Lys Thr Leu Ile 100 105 110

Asp Lys Ala Arg Val Glu Thr Gln Asn His Trp Phe Thr Tyr Asn Glu 115 120 125

Gln Phe Gly Glu Glu Asp Ala Asp Pro Gly Ala Met Ser Arg Pro Phe 145 150 155 160

Gly Val Ala Leu Leu Phe Gly Gly Val Asp Glu Lys Gly Pro Gln Leu 165 170 175

Phe His Met Asp Pro Ser Gly Thr Phe Val Gln Cys Asp Ala Arg Ala

180 185 190 Ile Gly Ser Ala Ser Glu Gly Ala Gln Ser Ser Leu Gln Glu Val Tyr 200 His Lys Ser Met Thr Leu Lys Glu Ala Ile Lys Ser Ser Leu Ile Ile 215 Leu Lys Gln Val Met Glu Glu Lys Leu Asn Ala Thr Asn Ile Glu Leu 230 Ala Thr Val Gln Pro Gly Gln Asn Phe His Met Phe Thr Lys Glu Glu Leu Glu Glu Val Ile Lys Asp Ile 260 <210> 1390 <211> 178 <212> PRT <213> Homo sapiens <400> 1390 Gln Lys Leu Glu Leu His Arg Gly Gly Gly Arg Ser Arg Thr Ser Gly Ser Pro Gly Leu Phe Gly Leu Ser Ala Arg Arg Leu Leu Ala Ala Ala 25 20 Ala Thr Arg Gly Leu Pro Ala Ala Arg Val Arg Trp Glu Ser Ser Phe Ser Arg Thr Val Val Ala Pro Ser Ala Val Ala Gly Lys Arg Pro Pro Glu Pro Thr Thr Pro Trp Gln Glu Asp Pro Glu Pro Glu Asp Glu Asn 65 70 Leu Tyr Glu Lys Asn Pro Asp Ser His Gly Tyr Asp Lys Asp Pro Val Leu Asp Val Trp Asn Met Arg Leu Val Phe Phe Phe Gly Val Ser Ile 105 Ile Leu Val Leu Gly Ser Thr Phe Val Ala Tyr Leu Pro Asp Tyr Arg

Cys Thr Gly Cys Pro Arg Ala Trp Asp Gly Met Lys Glu Trp Ser Arg

Arg Glu Ala Glu Arg Leu Val Lys Tyr Arg Glu Ala Asn Gly Leu Pro 145 150 155 160

Ile Met Glu Ser Asn Cys Phe Asp Pro Ser Lys Ile Gln Leu Pro Glu 165 170 175

Asp Glu

<210> 1391

<211> 133

<212> PRT

<213> Homo sapiens

<400> 1391

Val Ile Ile Thr Ser Ile Asn Gln Lys Ile Phe His Pro Leu Arg Ala 1 5 10 15

Leu Lys Leu Ser Thr Ser Ala Thr Phe Leu Ile Leu Val Leu Gly Gly 20 25 30

His Val Tyr Gly Leu Phe Asn Phe His Val Pro Tyr Cys Pro Leu Pro 35 40 45

Ala Val Ala Lys Ala Ser Cys Phe Ser Pro Thr Glu Glu Thr Val Leu $50 \hspace{1cm} 55 \hspace{1cm} 60$

Cys His Asp Asp Arg Ala Leu Leu Gly Leu Val Phe Leu Val Phe Pro 65 70 75 80

Phe Trp Gln Cys Gly Leu Gln Glu Leu Asp Val Tyr Ala Gln Gly Ile 85 90 95

Glu Phe Thr Leu Lys Leu Gly Asn Gly Val Phe Asn Leu Cys Ser Cys 100 105 110

Leu Phe Ile Leu Leu Phe Ile Phe Cys His Pro Ala Leu Tyr Trp Ala 115 120 125

Asn Asn Glu Ile Lys 130

<210> 1392

<211> 401

<212> PRT

<213> Homo sapiens

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Trp	Glu	Gly	Gly 20	Tyr	Glu	Arg	Thr	Trp 25	Glu	Ile	Leu	Lys	Glu 30	Asp	Glu
Ser	Gly	Ser 35	Leu	Lys	Ala	Thr	Ile 40	Glu	Asp	Ile	Leu	Phe 45	Lys	Ala	Lys
Arg	Lys 50	Arg	Val	Phe	Glu	His 55	His	Gly	Gln	Val	Arg 60	Leu	Gly	Met	Met
Arg 65	His	Leu	Tyr	Val	Val 70	Val	Asp	Gly	Ser	Arg 75	Thr	Met	Glu	Asp	Gln 80
Asp	Leu	Lys	Pro	Asn 85	Arg	Leu	Thr	Суз	Thr 90	Leu	Lys	Leu	Leu	Glu 95	Tyr
Phe	Val	Glu	Glu 100	Tyr	Phe	Asp	Gln	Asn 105	Pro	Ile	Ser	Gln	Ile 110	Gly	Ile
Ile	Val	Thr 115	Lys	Ser	Lys	Arg	Ala 120	Glu	Lys	Leu	Thr	Glu 125	Leu	Ser	Gly
Asn	Pro 130	Arg	Lys	His	Ile	Thr 135	Ser	Leu	Lys	Lys	Ala 140	Val	Asp	Met	Thr
Cys 145	His	Gly	Glu	Pro	Ser 150	Leu	Tyr	Asn	Ser	Leu 155	Ser	Ile	Ala	Met	Gln 160
Thr	Leu	Lys	His	Met 165	Pro	Gly	His	Thr	Ser 170	Arg	Glu	Val	Leu	Ile 175	Ile
Phe	Ser	Ser	Leu 180	Thr	Thr	Cys	Asp	Pro 185	Ser	Asn	Ile	Tyr	Asp 190	Leu	Ile
Lys	Thr	Leu 195	Lys	Ala	Ala	Lys	Ile 200	Arg	Val	Ser	Val	11e 205	Gly	Leu	Ser
Ala	Glu 210	Val	Arg	Val	Cys	Thr 215	Val	Leu	Ala	Arg	Glu 220	Thr	Gly	Gly	Thr
Tyr 225	His	Val	Ile	Leu	Asp 230	Glu	Ser	His	Tyr	Lys 235	Glu	Leu	Leu	Thr	His 240
His	Val	Ser	Pro	Pro 245	Pro	Ala	Ser	Ser	Ser 250	Ser	Glu	Cys	Ser	Leu 255	Ile
Arg	Met	Gly	Phe	Pro	Gln	His	Thr	Ile	Ala	Ser	Leu	Ser	Asp	Gln	Asp

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260 265 270 Ala Lys Pro Ser Phe Ser Met Ala His Leu Asp Gly Asn Thr Glu Pro 280 Gly Leu Thr Leu Gly Gly Tyr Phe Cys Pro Gln Cys Arg Ala Lys Tyr 295 Cys Glu Leu Pro Val Glu Cys Lys Ile Cys Gly Leu Thr Leu Val Ser 310 315 Ala Pro His Leu Ala Arg Ser Tyr His His Leu Phe Pro Leu Asp Ala 325 330 Phe Gln Glu Ile Pro Leu Glu Glu Tyr Asn Gly Glu Arg Phe Cys Tyr Gly Cys Gln Gly Glu Leu Lys Asp Gln His Val Tyr Val Cys Ala Val 360 Cys Gln Asn Val Phe Cys Val Asp Cys Asp Val Phe Val His Asp Ser 370 375 Leu His Cys Cys Pro Gly Cys Ile His Lys Ile Pro Ala Pro Ser Gly 390 395 Val <210> 1393 <211> 318 <212> PRT <213> Homo sapiens <400> 1393 Pro Glu Gly Leu Pro Arg Phe Asn Asn Phe Met Ala Pro Gly Ser Ala Ser Ser Pro Ser Pro Ser Phe Pro Ala Ser Arg Pro Trp Ala Ala Val Gly Thr Met Ala Ala Ala Ala Ala Gly Pro Ser Pro Gly Ser 40 Gly Pro Gly Asp Ser Pro Glu Gly Pro Glu Gly Glu Ala Pro Glu Arg Arg Arg Lys Ala His Gly Met Leu Lys Leu Tyr Tyr Gly Leu Ser Glu 70 75

Gly	Glu	Ala	Ala	Gly 85	Arg	Pro	Ala	Gly	Pro 90	Asp	Pro	Leu	Asp	Pro 95	Thr
Asp	Leu	Asn	Gly 100	Ala	His	Phe	Asp	Pro 105	Glu	Val	Tyr	Leu	Asp 110	Lys	Lev
Arg	Arg	Glu 115	Суз	Pro	Leu	Ala	Gln 120	Leu	Met	Asp	Ser	Glu 125	Thr	Asp	Met
Val	Arg 130	Gln	Ile	Arg	Ala	Leu 135	Asp	Ser	Asp	Met	Gln 140	Thr	Leu	Val	Tyr
Glu 145	Asn	Tyr	Asn	Lys	Phe 150	Ile	Ser	Ala	Thr	Asp 155	Thr	Ile	Arg	Lys	Met 160
Lys	Asn	Asp	Phe	Arg 165	Lys	Met	Glu	Asp	Glu 170	Met	Asp	Arg	Leu	Ala 175	Thr
			180					185				Ser	190		
Gln	Asp	Arg 195	His	Glu	Arg	Ile	Thr 200	Lys	Leu	Ala	Gly	Val 205	His	Ala	Leu
	210					215					220	Arg			
Cys 225	Val	Glu	Leu	Gly	Ala 230	Tyr	Gly	Gln	Ala	Val 235	Arg	Tyr	Gln	Gly	Arg 240
Ala	Gln	Ala	Val	Leu 245	Gln	Gln	Tyr	Gln	His 250	Leu	Pro	Ser	Phe	Arg 255	Ala
			260	-				265		_		Ala	270		
Arg	Gln	Arg 275	Phe	Arg	Glu	Gly	Gly 280	Ser	Gly	Ala	Pro	Glu 285	Gln	Ala	Glu
Cys	Val 290	Glu	Leu	Leu	Leu	Ala 295	Leu	Gly	Glu	Pro	Ala 300	Glu	Glu	Leu	Cys
Glu 305	Glu	Phe	Trp	Arg	Thr 310	Pro	Ala	Ala	Gly	Trp 315	Arg	Arg	Ser		

<210> 1394 <211> 1285

<212> PRT

<213>	Homo s	apiens
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Phe Ser Phe Pro Leu Ser Ser Glu Pro Phe Gln Gly Ser Tyr Lys Val

Val Val Gln Lys Lys Ser Gly Gly Arg Thr Glu His Pro Phe Thr Val 20 25 30

Glu Glu Phe Val Leu Pro Lys Phe Glu Val Gln Val Thr Val Pro Lys
35 40 45

Ile Ile Thr Ile Leu Glu Glu Glu Met Asn Val Ser Val Cys Gly Leu 50 55 60

Tyr Thr Tyr Gly Lys Pro Val Pro Gly His Val Thr Val Ser Ile Cys 65 70 75 80

Arg Lys Tyr Ser Asp Ala Ser Asp Cys His Gly Glu Asp Ser Gln Ala 85 90 95

Phe Cys Glu Lys Phe Ser Gly Gln Leu Asn Ser His Gly Cys Phe Tyr 100 105 110

Gln Gln Val Lys Thr Lys Val Phe Gln Leu Lys Arg Lys Glu Tyr Glu 115 120 125

Met Lys Leu His Thr Glu Ala Gln Ile Gln Glu Glu Gly Thr Val Val 130 135 140

Glu Leu Thr Gly Arg Gln Ser Ser Glu Ile Thr Arg Thr Ile Thr Lys 145 150 155 160

Leu Ser Phe Val Lys Val Asp Ser His Phe Arg Gln Gly Ile Pro Phe 165 170 175

Phe Gly Gln Val Arg Leu Val Asp Gly Lys Gly Val Pro Ile Pro Asn 180 185 190

Lys Val Ile Phe Ile Arg Gly Asn Glu Ala Asn Tyr Tyr Ser Asn Ala 195 200 205

Thr Thr Asp Glu His Gly Leu Val Gln Phe Ser Ile Asn Thr Thr Asn 210 215 220

Val Met Gly Thr Ser Leu Thr Val Arg Val Asn Tyr Lys Asp Arg Ser 225 230 235 240

Pro Cys Tyr Gly Tyr Gln Trp Val Ser Glu Glu His Glu Glu Ala His 245 250 255

His	Thr	Ala	Туг 260	Leu	Val	Phe	Ser	Pro 265	Ser	Lys	Ser	Phe	Val 270	His	Leu
Glu	Pro	Met 275	Ser	His	Glu	Leu	Pro 280	Cys	Gly	His	Thr	Gln 285	Thr	Val	Gln
Ala	His 290	Tyr	Ile	Leu	Asn	Gly 295	Gly	Thr	Leu	Leu	Gly 300	Leu	Lys	Lys	Leu
Ser 305	Phe	Tyr	Tyr	Leu	Ile 310	Met	Ala	Lys	Gly	Gly 315	Ile	Val	Arg	Thr	Gly 320
Thr	His	Gly	Leu	Leu 325	Val	Lys	Gln	Glu	Asp 330	Met	Lys	Gly	His	Phe 335	Ser
Ile	Ser	Ile	Pro 340	Val	Lys	Ser	Asp	11e 345	Ala	Pro	Val	Ala	Arg 350	Leu	Leu
	-	355				Thr	360	_			-	365			_
	370					Leu 375					380				
385					390	Ala				395		,			400
				405		Ala			410		_			415	
			420	_		Glu		425					430		
		435				Thr	440					445			
	450					Asn 455					460				
465					470	Ser				475	_				480
				485		Lys			490					495	_
			500			Leu		505					510		
етλ	ren	Arg 515	val	сτλ	ьие	Tyr	Glu 520	ser	Asp	val	met	G1y 525	Arg	GIÀ	His

Ala	Arg 530	Leu	Val	His	Val	Glu 535	Glu	Pro	His	Thr	Glu 540	Thr	Val	Arg	Lys
Tyr 545	Phe	Pro	Glu	Thr	Trp 550	Ile	Trp	Asp	Leu	Val 555	Val	Val	Asn	ser	Ala 560
Gly	Val	Ala	Glu	Val 565	Gly	Val	Thr	Val	Pro 570	Asp	Thr	Ile	Thr	Glu 575	Trp
Lys	Ala	Gly	Ala 580	Phe	Cys	Leu	Ser	Glu 585	Asp	Ala	Gly	Leu	Gly 590	Ile	Ser
Ser	Thr	Ala 595	Ser	Leu	Arg	Ala	Phe 600	Gln	Pro	Phe	Phe	Val 605	Glu	Leu	Thr
	610				Ile	615					620				
625			_		Pro 630	_	_			635					640
				645	Leu				650		_			655	
	_		660		Asn			665					670		
	_	675		_	Asn		680					685			
	690				Cys	695					700				
705					Val 710					715					720
				725	Thr				730		_			735	
			740		Leu			745					750		
		755			Ser		760			-		765			
	770				Gln	775					780				
31u 785	GIN	ASN	met	vaı	Leu 790	rne	ATA	PTO	Asn	795	TYT	vaı	ren	qsa	Tyr 800

Leu	Asn	Glu	Thr	Gln 805	Gln	Leu	Thr	Pro	Glu 810	Ile	Lys	Ser	Lys	Ala 815	Ile
Gly	Tyr	Leu	Asn 820	Thr	Gly	Tyr	Gln	Arg 825	Gln	Leu	Asn	Tyr	Lys	His	Tyr
Asp	Gly	Ser 835	Tyr	Ser	Thr	Phe	Gly 840	Glu	Arg	Tyr	Gly	Arg 845	Asn	Gln	Gly
Asn	Thr 850	Trp	Leu	Thr	Ala	Phe 855	Val	Leu	Lys	Thr	Phe 860	Ala	Gln	Ala	Arg
Ala 865	Tyr	Ile	Phe	Ile	Asp 870	Glu	Ala	His	Ile	Thr 875	Gln	Ala	Leu	Ile	Trp 880
Leu	Ser	Gln	Arg	Gln 885	Lys	Asp	Asn	Gly	Cys 890	Phe	Arg	Ser	Ser	Gly 895	Ser
Leu	Leu	Asn	Asn 900	Ala	Ile	Lys	Gly	Gly 905	Val	Glu	Asp	Glu	Val 910	Thr	Leu
Ser	Ala	Туг 915	Ile	Thr	Ile	Ala	Leu 920	Leu	Glu	Ile	Pro	Leu 925	Thr	Val	Thr
His	Pro 930	Val	Val	Arg	Asn	Ala 935	Leu	Phe	Суз	Leu	Glu 940	Ser	Ala	Trp	Lys
Thr 945	Ala	Gln	Glu	Gly	Asp 950	His	Gly	Ser	His	Val 955	Tyr	Thr	Lys	Ala	Leu 960
Leu	Ala	Tyr	Ala	Phe 965	Ala	Leu	Ala	Gly	Asn 970	Gln	Asp	Lys	Arg	Lys 975	Glu
Val	Leu	Lys	Ser 980	Leu	Asn	Glu	Glu	Ala 985	Val	Lys	Lys	Asp	Asn 990	Ser	Val
His	Trp	Glu 995	Arg	Pro	Gln	-	Pro 1000	Lys	Ala	Pro		Gly 1005	His	Phe	туг
	Pro .010	Gln	Ala	Pro		Ala 1015	Glu	Val	Glu		Thr 1020		Tyr	Val	Leu
Leu 025	Ala	Tyr	Leu		Ala 1030	Gln	Pro	Ala		Thr 1035	Ser	Glu	Asp		Thr .040
Ser	Ala	Thr	Asn 1	Ile .045	Val	Lys	Trp		Thr.	Lys	Gln	Gln		Ala .055	Gln

Gly Gly Phe Ser Ser Thr Gln Asp Thr Val Val Ala Leu His Ala Leu

1065

1070

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Ser Lys Tyr Gly Ala Ala Thr Phe Thr Arg Thr Gly Lys Ala Ala Gln 1075 1080 1085

Val Thr Ile Gln Ser Ser Gly Thr Phe Ser Ser Lys Phe Gln Val Asp 1090 1095 1100

Asn Asn Asn Arg Leu Leu Gln Gln Val Ser Leu Pro Glu Leu Pro 105 1110 1115 1120

Gly Glu Tyr Ser Met Lys Val Thr Gly Glu Gly Cys Val Tyr Leu Gln 1125 1130 1135

Thr Ser Leu Lys Tyr Asn Ile Leu Pro Glu Lys Glu Glu Phe Pro Phe 1140 1145 1150

Ala Leu Gly Val Gln Thr Leu Pro Gln Thr Cys Asp Glu Pro Lys Ala 1155 1160 1165

His Thr Ser Phe Gln Ile Ser Leu Ser Val Ser Tyr Thr Gly Ser Arg 1170 1175 1180

Ser Ala Ser Asn Met Ala Ile Val Asp Val Lys Met Val Ser Gly Phe 185 1190 1195 1200

Ile Pro Leu Lys Pro Thr Val Lys Met Leu Glu Arg Ser Asn His Val 1205 1210 1215

Ser Arg Thr Glu Val Ser Ser Asn His Val Leu Ile Tyr Leu Asp Lys 1220 1225 1230

Val Ser Asn Gln Thr Leu Ser Leu Phe Phe Thr Val Leu Gln Asp Val 1235 1240 1245

Pro Val Arg Asp Leu Lys Pro Ala Ile Val Lys Val Tyr Asp Tyr Tyr 1250 1255 1260

Glu Thr Asp Glu Phe Ala Ile Ala Glu Tyr Asn Ala Pro Cys Ser Lys 265 1270 1275 1280

Asp Leu Gly Asn Ala 1285

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<211> 75

<212> PRT

<213> Homo sapiens

<400> 1395

Ile Thr Lys Asn Ile Tyr Ser Asp Leu Lys Asp Leu Ser Ala Lys Asn

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10

15

1

5

Gln Ser Ile Ser Cys Pro Ser Ile Ile Val His Ala Cys Leu Leu 25 Phe Thr Cys Ser Ser Ala Gln Thr Val Ser Asn Leu Gly Thr Pro Phe Gly Ala Asp Lys Tyr Ser Ser Ala Phe Ser Pro Gln Ile Tyr Asn Asp 55 Phe Asn Ile Pro Lys Asn Ile Gly Ile Ser Glu <210> 1396 <211> 920 <212> PRT <213> Homo sapiens <400> 1396 Arg Thr Arg Gly Ile His Gly Glu Met Arg Leu Phe Val Ser Asp Gly Val Pro Gly Cys Leu Pro Val Leu Ala Ala Ala Gly Arg Ala Arg Gly Arg Ala Glu Val Leu Ile Ser Thr Val Gly Pro Glu Asp Cys Val Val 40 Pro Phe Leu Thr Arg Pro Lys Val Pro Val Leu Gln Leu Asp Ser Gly . 55 Asn Tyr Leu Phe Ser Thr Ser Ala Ile Cys Arg Tyr Phe Phe Leu Leu Ser Gly Trp Glu Gln Asp Asp Leu Thr Asn Gln Trp Leu Glu Trp Glu Ala Thr Glu Leu Gln Pro Ala Leu Ser Ala Ala Leu Tyr Tyr Leu Val 105 Val Gln Gly Lys Lys Gly Glu Asp Val Leu Gly Ser Val Arg Arg Ala 120 Leu Thr His Ile Asp His Ser Leu Ser Arg Gln Asn Cys Pro Phe Leu 130 135 Ala Gly Glu Thr Glu Ser Leu Ala Asp Ile Val Leu Trp Gly Ala Leu 150 155

TYE	PIO	ren	Leu	165	ASP	PIO	Ald	TYL	170	PIO	Giu	GIU	Leu	175	AIA
Leu	His	Ser	Trp 180	Phe	Gln	Thr	Leu	Ser 185	Thr	Gln	Glu	Pro	Cys 190	Gln	Arg
Ala	Ala	Glu 195	Thr	Val	Leu	Lys	Gln 200	Gln	Gly	Val	Leu	Ala 205	Leu	Arg	Pro
Tyr	Leu 210	Gln	Lys	Gln	Pro	Gln 215	Pro	Ser	Pro	Ala	Glu 220	Gly	Arg	Ala	Val
Thr 225	Asn	Glu	Pro	Glu	Glu 230	Glu	Glu	Leu	Ala	Thr 235	Leu	Ser	Glu	Glu	Glu 240
Ile	Ala	Met	Ala	Val 245	Thr	Ala	Trp	Glu	Lys 250	Gly	Leu	Glu	Ser	Leu 255	Pro
Pro	Leu	Arg	Pro 260	Gln	Gln	Asn	Pro	Val 265	Leu	Pro	Val	Ala	Gly 270	Glu	Arg
Asn	Val	Leu 275	Ile	Thr	Ser	Ala	Leu 280	Pro	Tyr	Val	Asn	Asn 285	Val	Pro	His
Leu	Gly 290	Asn	Ile	Ile	Gly	Cys 295	Val	Leu	Ser	Ala	Asp 300	Val	Phe	Ala	Arg
Tyr 305	Ser	Arg	Leu	Arg	Gln 310	Trp	Asn	Thr	Leu	Туг 315	Leu	Суз	Gly	Thr	Asp 320
Glu	Tyr	Gly	Thr	Ala 325	Thr	Glu	Thr	Lys	Ala 330	Leu	Glu	Glu	Gly	Leu 335	Thr
Pro	Gln	Glu	11e 340	Сув	Asp	Lys	Tyr	His 345	Ile	Ile	His	Ala	Asp 350	Ile	Tyr
Arg	Trp	Phe 355	Asn	Ile	Ser	Phe	Asp 360	Ile	Phe	Gly	Arg	Thr 365	Thr	Thr	Pro
Gln	Gln 370	Thr	Lys	Ile	Thr	Gln 375	Asp	Ile	Phe	Gln	Gln 380	Leu	Leu	Lys	Arg
Gly 385	Phe	Val	Leu	Gln	Asp 390	Thr	Val	Glu	Gln	Leu 395	Arg	Cys	Glu	His	Cys 400
Ala	Arg	Phe	Leu	Ala 405	Asp	Arg	Phe	Val	Glu 410	Gly	Val	Cys	Pro	Phe 415	Cys
Gly	Tyr	Glu	Glu 420	Ala	Arg	Gly	Asp	Gln 425	Cys	Asp	Lys	Cys	Gly 430	Lys	Leu

Ile	Asn	Ala 435	Val	Glu	Leu	Lys	Lys 440	Pro	Gln	Cys	Lys	Val 445	Cys	Arg	Ser
Cys	Pro 450	Val	Val	Gln	Ser	Ser 455	Gln	His	Leu	Phe	Leu 460	Asp	Leu	Pro	Lys
Leu 465	Glu	Lys	Arg	Leu	Glu 470	Glu	Trp	Leu	Gly	Arg 475	Thr	Leu	Pro	Gly	Ser 480
Asp	Trp	Thr	Pro	Asn 485	Ala	Gln	Phe	Ile	Thr 490	Arg	Ser	Trp	Leu	Arg 495	Asp
Gly	Leu	Lys	Pro 500	Arg	Суз	Ile	Thr	Arg 505	Asp	Leu	Lys	Trp	Gly 510	Thr	Pro
Val	Pro	Leu 515	Glu	Gly	Phe	Glu	Asp 520	Lys	Val	Phe	Tyr	Val 525	Trp	Phe	Asp
Ala	Thr 530	Ile	Gly	Tyr	Leu	Ser 535	Ile	Thr	Ala	Asn	туг 540	Thr	Asp	Gln	Trp
Glu 545	Arg	Trp	Trp	Lys	Asn 550	Pro	Glu	Gln	Val	Asp 555	Leu	Tyr	Gln	Phe	Met 560
Ala	Lys	Asp	Asn	Val 565	Pro	Phe	His	Ser	Leu 570	Val	Phe	Pro	Сув	Ser 575	Ala
Leu	Gly	Ala	Glu 580	Asp	Asn	Tyr	Thr	Leu 585	Val	Ser	His	Leu	Ile 590	Ala	Thr
Glu	Tyr	Leu 595	Asn	Tyr	Glu	Asp	Gly 600	Lys	Phe	Ser	Lys	Ser 605	Arg	Gly	Val
Gly	Val 610	Phe	Gly	Asp	Met	Ala 615	Gln	Asp	Thr	Gly	11e 620	Pro	Ala	Asp	Ile
Trp 625	Arg	Phe	Tyr	Leu	Leu 630	Tyr	Ile	Arg	Pro	Glu 635	Gly	Gln	Asp	Ser	Ala 640
Phe	Ser	Trp	Thr	Asp 645	Leu	Leu	Leu	Lys	Asn 650	Asn	Ser	Glu	Leu	Leu 655	Asn
Asn	Leu	Gly	Asn 660	Phe	Ile	Asn	Arg	Ala 665	Gly	Met	Phe	Val	Ser 670	Lys	Phe
Phe	Gly	Gly 675	Tyr	Val	Pro	Glu	Met 680	Val	Leu	Thr	Pro	Asp 685	Asp	Gln	Arg
Leu	Leu 690	Ala	His	Val	Thr	Leu 695	Glu	Leu	Gln	His	Tyr 700	His	Gln	Leu	Leu

Glu Lys Val Arg Ile Arg Asp Ala Leu Arg Ser Ile Leu Thr Ile Ser 705 710 715 Arg His Gly Asn Gln Tyr Ile Gln Val Asn Glu Pro Trp Lys Arg Ile 725 730 Lys Gly Ser Glu Ala Asp Arg Gln Arg Ala Gly Thr Val Thr Gly Leu 745 Ala Val Asn Ile Ala Ala Leu Leu Ser Val Met Leu Gln Pro Tyr Met 760 Pro Thr Val Ser Ala Thr Ile Gln Ala Gln Leu Gln Leu Pro Pro 775 Ala Cys Ser Ile Leu Leu Thr Asn Phe Leu Cys Thr Leu Pro Ala Gly 790 795 His Gln Ile Gly Thr Val Ser Pro Leu Phe Gln Lys Leu Glu Asn Asp 805 810 Gln Ile Glu Ser Leu Arg Gln Arg Phe Gly Gly Gln Ala Lys Thr 820 825 Ser Pro Lys Pro Ala Val Val Glu Thr Val Thr Thr Ala Lys Pro Gln 840 Gln Ile Gln Ala Leu Met Asp Glu Val Thr Lys Gln Gly Asn Ile Val 850 855 Arg Glu Leu Lys Ala Gln Lys Ala Asp Lys Asn Glu Val Ala Ala Glu 870 Val Ala Lys Leu Leu Asp Leu Lys Lys Gln Leu Ala Val Ala Glu Gly 890 Asn Pro Leu Lys Pro Leu Lys Ala Arg Arg Lys Ser Lys Arg Pro Trp 900 905 Leu Ile Glu Ser His Phe Asn Arg

<210> 1397

<211> 476

<212> PRT

<213> Homo sapiens

915

<220>

~~~	- 5	1111													
<22	2> (	127)													
	•	•	qual	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
<40	0> 1	397													
			Ala	Leu 5	Thr	Thr	Leu	Phe	Lys 10	Tyr	Ile	Asp	Glu	Asn 15	Gln
Asp	Arg	Tyr	Ile 20	Lys	Lys	Leu	Ala	Lys 25	Trp	Val	Ala	Ile	Gln 30	Ser	Val
Ser	Ala	Trp 35	Pro	Glu	Lys	Arg	Gly 40	Glu	Ile	Arg	Arg	Met 45	Met	Glu	Val
Ala	Ala 50	Ala	Asp	Val	Lys	Gln 55	Leu	Gly	Gly	Ser	Val 60	Glu	Leu	Val	Asp
Ile 65	Gly	Lys	Gln	Lys	Leu 70	Pro	Asp	Gly	Ser	Glu 75	Ile	Pro	Leu	Pro	Pro 80
Ile	Leu	Leu	Gly	Arg 85	Leu	Gly	Ser	Asp	Pro 90	Gln	Lys	Lys	Thr	Val 95	Cys
Ile	Tyr	Gly	His 100	Leu	Asp	Val	Gln	Pro 105	Ala	Ala	Leu	Glu	Asp 110	Gly	Trp
Asp	Ser	Glu 115	Pro	Phe	Thr	Leu	Val 120	Glu	Arg	Asp	Gly	Lys 125	Leu	Xaa	Gly
Arg	Gly 130	Ser	Thr	Asp	Asp	Lys 135	Gly	Pro	Val	Ala	Gly 140	Trp	Ile	Asn	Ala
Leu 145	Glu	Ala	Tyr	Gln _.	Lys 150	Thr	Gly	Gln	Glu	Ile 155	Pro	Val	Asn	Val	Arg 160
Phe	Cys	Leu	Glu	Gly 165	Met	Glu	Glu	Ser	Gly 170	Ser	Glu	Gly	Leu	Asp 175	Glu
Leu	Ile	Phe	Ala 180	Arg	Lys	Asp	Thr	Phe 185	Phe	Lys	Asp	Val	Asp 190	туг	Val
Cys	Ile	Ser 195	Asp	Asn	Tyr	Trp	Leu 200	Gly	Lys	Lys	Lys	Pro 205	Суз	Ile	Thr
Tyr	Gly 210	Leu	Arg	Gly	Ile	Cys 215	туг	Phe	Phe	Ile	Glu 220		Glu	Cys ·	Ser
Asn 225	Lys	Asp	Leu	His	Ser 230	Gly	Val	Tyr	Gly	Gly 235	Ser	Val	His	Glu	Ala 240
Met	Thr	Asp	Leu	Ile	Leu	Leu	Met	Gly	Ser	Leu	Val	Asp	Lys	Arg	Gly

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1468

				245					250					255	
Asn	Ile	Leu	Ile 260	Pro	Gly	Ile	Asn	Glu 265	Ala	Val	Ala	Ala	Val 270	Thr	Glu
Glu	Glu	His 275	Lys	Leu	Tyr	Asp	Asp 280	Ile	Asp	Phe	Asp	11e 285	Glu	Glu	Phe
Ala	Lys 290	Asp	Val	Gly	Ala	Gln 295	Ile	Leu	Leu	His	Ser 300	His	Lys	Lys	Asp
11e 305	Leu	Met	His	Arg	Trp 310	Arg	туг	Pro	Ser	Leu 315	Ser	Leu	His	Gly	Ile 320
Glu	Gly	Ala	Phe	Ser 325	Gly	Ser	Gly	Ala	Lys 330	Thr	Val	Ile	Pro	Arg 335	Lys
Val	Val	Gly	Lys 340	Phe	Ser	Ile	Arg	Leu 345	Val	Pro	Asn	Met	Thr 350	Pro	Glu
		355	Glu				360					365			
Leu	Arg 370	Ser	Pro	Asn	Glu	Phe 375	Lys	Val	Tyr	Met	Gly 380	His	Gly	Gly	Lys
Pro 385	Trp	Val	Ser	Asp	Phe 390	Ser	His	Pro	His	Туг 395	Leu	Ala	Gly	Arg	Arg 400
Ala	Met	Lys	Thr	Val 405	Phe	Gly	Val	Glu	Pro 410	Asp	Leu	Thr	Arg	Glu 415	Gly
Gly	Ser	Ile	Pro 420	Val	Thr	Leu	Thr	Phe 425	Gln	Glu	Ala	Thr	Gly 430	Lys	Asn
Val	Met	Leu 435	Leu	Pro	Val	Gly	Ser 440	Ala	Asp	Asp	Gly	Ala 445	His	Ser	Gln
Asn	Glu 450	Lys	Leu	Asn	Arg	Tyr 455	Asn	Tyr	Ile	Glu	Gly 460	Thr	Lys	Met	Leu
Ala 465	Ala	Tyr	Leu	Tyr	Glu 470	Val	Ser	Gln	Leu	Lys 475	Asp				

<210> 1398

<211> 187

<212> PRT

<213> Homo sapiens

PCT/US00/05882

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1398

Leu His Leu Xaa Pro Thr Ser Ile Ser Ser Ser Ser Ser Cys Ser Val
1 5 10 15

Ser Ser Val Val Ser Gln Arg Leu Thr Glu Ser Pro Cys Ala Leu Val 20 25 30

Ala Ser Gln Tyr Gly Trp Ser Gly Asn Met Glu Arg Ile Met Lys Ala 35 40 45

Gln Ala Tyr Gln Thr Gly Lys Asp Ile Ser Thr Asn Tyr Tyr Ala Ser 50 55 60

Gln Lys Lys Thr Phe Glu Ile Asn Pro Arg His Pro Leu Ile Arg Asp 65 70 75 80

Met Leu Arg Arg Ile Lys Glu Asp Glu Asp Asp Lys Thr Val Leu Asp 85 90 95

Leu Ala Val Val Leu Phe Glu Thr Ala Thr Leu Arg Ser Gly Tyr Leu 100 105 110

Leu Pro Asp Thr Lys Ala Tyr Gly Asp Arg Ile Glu Arg Met Leu Arg 115 120 125

Leu Ser Leu Asn Ile Asp Pro Asp Ala Lys Val Glu Glu Glu Pro Glu 130 135 140

Glu Glu Pro Glu Glu Thr Ala Glu Asp Thr Thr Glu Asp Thr Glu Gln 145 150 155 160

Asp Glu Asp Glu Glu Met Asp Val Gly Thr Asp Glu Glu Glu Glu Thr
165 170 175

Ala Lys Glu Ser Thr Ala Glu Lys Asp Glu Leu 180 185

<210> 1399

<211> 376

<212> PRT

<213> Homo sapiens

<400> 1399

Lys Ser Ser Thr Gly Val Ile Pro Asp Glu Ala Lys Ala Leu Ser Leu

1				5					10					15	
Leu	Ala	Pro	Ala 20	Asn	Ala	Val	Ala	Gly 25	Leu	Leu	Pro	Gly	Gly 30	Gly	Leu
Leu	Pro	Thr 35	Pro	Asn	Pro	Leu	Thr 40	Gln	Ile	Gly	Ala	Val 45	Pro	Leu	Ala
Ala	Leu 50	Gly	Ala	Pro	Thr	Leu 55	Asp	Pro	Ala	Leu	Ala 60	Ala	Leu	Gly	Leu
Pro 65	Gly	Ala	Asn	Leu	Asn 70	Ser	Gln	Ser	Leu	Ala 75	Ala	Asp	Gln	Leu	Leu 80
Lys	Leu	Met	Ser	Thr 85	Val	Asp	Pro	Lys	Leu 90	Asn	His	Val	Ala	Ala 95	Gly
Leu	Val	Ser	Pro 100	Ser	Leu	Lys	Ser	Asp 105	Thr	Ser	Ser	Lys	Glu 110	Ile	Glu
Glu	Ala	Met 115	Lys	Arg	Val	Arg	Glu 120	Ala	Gln	Ser	Leu	11e 125	Ser	Ala	Ala
Ile	Glu 130	Pro	Asp	Lys	Lys	Glu 135	Glu	Lys	Arg	Arg	His 140	Ser	Arg	Ser	Arg
Ser 145	Arg	Ser	Arg	Arg	Arg 150	Arg	Thr	Pro	Ser	Ser 155	Ser	Arg	His	Arg	Arg 160
Ser	Arg	Ser	Arg	Ser 165	Arg	Arg	Arg	Ser	His 170	Ser	Lys	Ser	Arg	Ser 175	Arg
Arg	Arg	Ser	Lys 180	Ser	Pro	Arg	Arg	Arg 185	Arg	Ser	His	Ser	Arģ 190	Glu	Arg
Gly	Arg	Arg 195	Ser	Arg	Ser	Thr	Ser 200	Lys	Thr	Arg	Asp	Lys 205	Lys	Lys	Glu
Asp	Lys 210	Glu	Lys	Lys	Arg	Ser 215	Lys	Thr	Pro	Pro	Lys 220	Ser	Tyr	Ser	Thr
Ala 225	Arg	Arg	Ser	Arg	Ser 230	Ala	Ser	Arg	Glu	Arg 235	Arġ	Arg	Arg	Arg	Ser 240
Arg	Ser	Gly	Thr	Arg 245	Ser	Pro	Lys	Lys	Pro 250	Arg	Ser	Pro	Lys	Arg 255	Lys
Leu	Ser	Arg	Ser 260	Pro	Ser	Pro	Arg	Arg 265	His	Lys	Lys	Glu	Lys 270	Lys	Lys
Agn	T.ve	Aen	Luc	Glu.	A = G	Sar	1.00	Acn	C1	7 20	Cl.	7-4	Sar	ጥh 🕶	Sar

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1471

275 280 285 Lys Lys Lys Ser Lys Asp Lys Glu Lys Asp Arg Glu Arg Lys Ser 295 300 Glu Ser Asp Lys Asp Val Lys Gln Val Thr Arg Asp Tyr Asp Glu Glu 310 315 Glu Gln Gly Tyr Asp Ser Glu Lys Glu Lys Lys Glu Glu Lys Lys Pro 330 Ile Glu Thr Gly Ser Pro Lys Thr Lys Glu Cys Ser Val Glu Lys Gly 345 Thr Gly Asp Ser Leu Arg Glu Ser Lys Val Asn Gly Asp Asp His His Glu Glu Asp Met Asp Met Ser Asp <210> 1400 <211> 112 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (21) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1400 Thr Ala Gly Leu Thr Ser Arg Gly Trp Gly Ser Leu Pro Pro Ser Leu Glu Thr Phe Leu Xaa Trp Leu Lys Ser Arg Lys Glu Asn Glu Cys Thr 25 Ser Arg Leu Ala Gln Ser Leu Ser Pro Ser Ser Ser Leu Phe Pro Ala 35 40 Gly Pro Ser Gly Leu Tyr Gly Pro Asp Gly Gly Leu Arg Lys Met Arg Gly Leu Trp Phe Ser Gly Ile Pro Ala Gly Ala Thr Pro Ser Cys Leu 70

Gln Met Val His Val Pro Ile Pro Pro Ser Arg Pro Leu Leu Cys Leu

Leu Cys His Arg Asp Ser Gln Gln Arg Phe Phe Phe Val Leu Ala Val

<210> 1401

<211> 69

<212> PRT

<213> Homo sapiens

<400> 1401

Arg Arg Gln Val Gly Ala Ala Ala Val Ala Met Thr Arg Gly Asn Gln 1 5 10 15

Arg Glu Leu Ala Arg Gln Lys Asn Met Lys Lys Gln Ser Asp Ser Val $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$ 

Lys Gly Lys Arg Arg Asp Asp Gly Leu Ser Ala Ala Ala Arg Lys Gln  $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$ 

Arg Asp Ser Glu Ile Met Gln Gln Lys Gln Lys Lys Ala Asn Glu Lys 50 60

Lys Glu Glu Pro Lys 65

<210> 1402

<211> 177

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (162)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (166)

<223> Xaa equals any of the naturally occurring L-amino acids

<400	)> 14	102													
Arg 1	Pro	Pro	Arg	Arg 5	Xaa	Pro	Met	Asp	Gly 10	Pro	Ala	Ile	Ile	Thr 15	Gli
Val	Thr	Asn	Pro 20	Lys	Glu	Asp	Glu	Gly 25	Arg	Leu	Pro	Gly	Ala 30	Gly	Gli
Lys	Ala	Ser 35	Gln	Cys	Asn	Val	Ser 40	Leu	Lys	Lys	Gln	Arg 45	Ser	Arg	Sei
Ile	Leu 50	Ser	Ser	Phe	Phe	Cys 55	Cys	Phe	Arg	Asp	Tyr 60	Asn	Val	Glu	Ala
Pro 65	Pro	Pro	Ser	Ser	Pro 70	Ser	Val	Leu	Pro	Pro 75	Leu	Val	Glu	Glu	Ası 80
Gly	Gly	Leu	Gln	Lys 85	Pro	Pro	Ala	Lys	Tyr 90	Leu	Leu	Pro	Glu	Val 95	Thi
Val	Leu	Asp	Tyr 100	Gly	Lys	Lys	Cys	Val 105	Val	Ile	Asp	Leu	Asp 110	Glu	Thi
Leu	Val	His 115	Ser	Ser	Phe	Lys	Pro 120	Ile	Ser	Asn	Ala	Asp 125	Phe	Ile	Va]
Pro	Val 130	Glu	Ile	Asp	Gly	Thr 135	Ile	His	Gln	Val	Tyr 140	Val	Leu	Lys	Arg
Pro 145	His	Val	Asp	Glu	Phe 150	Leu	Gln	Arg	Met	Gly 155	Gln	Leu	Leu	Asn	Val
Cys	Xaa	Leu	Leu	Pro 165	Xaa	Gly	Gln	Val	Cys 170	Arg	Pro	Val	Ala	Asp 175	Leu
Leu															

<210> 1403

<211> 82

<212> PRT

<213> Homo sapiens

<400> 1403

Lys His Ile Leu Ser Thr Phe Glu Thr Ser Val Leu Glu Gly Arg Leu  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

His Lys Leu Ser Ser Pro Arg Leu Arg Arg Leu Gln Ser Gly Lys Leu 20 25 30

Thr Cys Arg Asn Gly Val Pro Phe Met Leu Tyr Leu Asp Lys Gly Asn 35 40 45

Gln Lys Trp Asn Gln Cys Arg Gln Asn Leu Gly Phe Ala Ala Ser Ile 50 55 60

Asn Gln Ser Met Thr Asn Arg Gly Ser Leu Lys Cys Lys Gly Thr Asn 65 70 75 80

Phe Thr

<210> 1404

<211> 251

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1404

Thr Thr Lys Pro Ala Thr Thr Pro Ser Ser Thr Thr Arg Thr Cys Arg

1 5 10 15

Arg Ser Pro Ser Thr Leu Pro Ser Ala Thr Trp Thr Pro Leu Ala Ser 20 25 30

Arg Thr Ala His Xaa Leu Pro Arg Xaa Tyr Met Tyr Pro Ser Met Asp  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Gln Leu Ala Glu Met Leu Pro Gly Val Leu Gln Gln Phe Gly Leu Lys
50 60

Ser Ile Ile Gly Met Gly Thr Gly Ala Gly Ala Tyr Ile Leu Thr Arg
65 70 75 80

Phe Ala Leu Asn Asn Pro Glu Met Val Glu Gly Leu Val Leu Ile Asn
85
90
95

Val Asn Pro Cys Ala Glu Gly Trp Met Asp Trp Ala Ala Ser Lys Ile 100 105 110

1475

Ser Gly Trp Thr Gln Ala Leu Pro Asp Met Val Val Ser His Leu Phe 115 120 Gly Lys Glu Glu Met Gln Ser Asn Val Glu Val Val His Thr Tyr Arg 135 Gln His Ile Val Asn Asp Met Asn Pro Gly Asn Leu His Leu Phe Ile 150 155 Asn Ala Tyr Asn Ser Arg Arg Asp Leu Glu Ile Glu Arg Pro Met Pro 165 170 Gly Thr His Thr Val Thr Leu Gln Cys Pro Ala Leu Leu Val Val Gly 185 Asp Ser Ser Pro Ala Val Asp Ala Val Val Glu Cys Asn Ser Lys Leu 200 Asp Pro Thr Lys Thr Thr Leu Leu Lys Met Ala Asp Cys Gly Gly Leu 215 Pro Gln Ile Ser Gln Pro Ala Lys Leu Ala Glu Ala Phe Lys Tyr Phe 230 235 Val Gln Gly Met Gly Tyr Met Pro Arg Leu Ala 245 <210> 1405 <211> 127 <212> PRT

<213> Homo sapiens

<400> 1405

Phe Glu Gly Phe Tyr Ser Gly Arg Lys Asn Arg Thr Lys Val Tyr Val

Pro Ser Ser Val Val Leu Ile Asp Leu Phe Phe Leu Phe Glu Thr Lys

Val Val Ser Val Phe Trp Phe Ser Gly Asn Met Tyr Tyr Ile Val Leu

Lys Glu Cys Cys Pro Thr Asn Tyr Ser Ser Lys Gln Arg Ile Val Thr

Ile Asn Lys Val Ser Val Thr Leu Leu Pro Leu Ser His Asn Ile His 75

Cys Arg Ala Leu Cys Arg Ser Lys Asn Arg Ala Ala Gln Asn Leu Cys

1476

85 90 95 Gly Ser Phe Leu Ser Phe Cys Asn Leu Arg His Met Phe Gln Arg Thr 100 105 Gly Ile Phe Val Trp Ser Ser Asp Leu Gly Asp His Ser His Asn 115 120 125 <210> 1406 <211> 230 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (90) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (112) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (118) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (169) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (190) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (192) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (194) <223> Xaa equals any of the naturally occurring L-amino acids <220>

<221> SITE

	2> ( 3> X		qual	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
	1> s														
<22		aa e	qual	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
	0> 1 Glu		Pro	Leu 5	Gln	Val	Pro	Arg	Ser 10	Ala	Gly	Glu	Ala	Ala 15	Pro
His	Ser	Arg	Arg 20	Pro	Pro	Gly	Leu	Leu 25	Pro	His	Ala	Pro	Arg 30	Ala	Ala
Ser	Ala	Gln 35	Leu	Glu	Glu	Arg	Arg 40	Arg	Asp	Pro	His	Pro 45	Gly	Met	Thr
Leu	Gln 50	Glu	Gly	Asp	Cys	Arg 55	Gly	Ser	Gln	Thr	Val 60	Ser	Leu	Thr	Met
Gly 65	Thr	Ala	Asp	Ser	Asp 70	Glu	Met	Ala	Pro	Glu 75	Ala	Pro	Gln	His	Thr 80
His	Ile	Asp	Val	His 85	Ile	His	Gln	Glu	Xaa 90	Ala	Leu	Ala	Lys	Leu 95	Leu
Leu	Thr	Cys	Cys 100	Ser	Ala	Leu	Arg	Pro 105	Arg	Ala	Thr	Gln	Ala 110	Arg	Xaa
Ser	Ser	Arg 115	Leu	Leu	Xaa	Ala	Ser 120	Trp	Val	Met	Gln	Ile 125	Val	Leu	Gly
Ile	Leu 130	Ser	Ala	Val	Leu	Gly 135	Gly	Phe	Phe	Tyr	Ile 140	Arg	Asp	Tyr	Thr
Leu 145	Leu	Val	Thr	Ser	Gly 150	Ala	Ala	Ser	Gly	Gln 155	Gly	Leu	Trp	Leu	Cys 160
Cys	Trp	Ser	Cys	Cys 165	Leu	His	Leu	Xaa	Glu 170	Thr	Gly	Trp	Tyr	Ile 175	Leu
Gly	Pro	Ala	Glu 180	Asp	Ser	Ala	Asn	Ala 185	Gly	Lys	Leu	Ser	Xaa 190	Gln	Xaa
Ser	Xaa	Ala 195	Ser	Asn	Phe	Gly	Asn 200	Glu	Glu	Phe	Arg	Tyr 205	Gly	Leu	Leu
Leu	Ile 210	Thr	Thr	Ser	Gly	Trp 215	Pro	Xaa	Xaa	Gln	Val 220	Arg	Val	Asp	Trp

Asn Thr Ser Ser Pro Gln 225 230

<210> 1407

<211> 79

<212> PRT

<213> Homo sapiens

<400> 1407

Arg Gly His Phe Leu Leu Pro Asp Leu Asp Ile Pro Ser Asn Pro Ser 1 5 10 15

Ser Tyr Ser Met Leu Lys Glu Lys Tyr Ser Gln Met His Tyr Val Asn 20 25 30

Gly Glu Lys Lys His Ser Ile Val Glu Thr Pro Ile Leu Ala Asn Val 35 40 45

Phe Trp Ser Val Phe His Phe Thr Val Tyr Ile Pro Ala Leu Lys Thr 50 55 60

Gln Gly Gln Val Leu Thr Lys Glu Val Cys Ser His Ser Lys Tyr
65 70 75

<210> 1408

<211> 289

<212> PRT

<213> Homo sapiens

<400> 1408

Val Arg Pro Pro Ser His Val Thr Ala Asp Ser Gly Arg Ser Pro Leu

1 5 10 15

Ser Leu Thr Tyr Leu Pro Leu Gln Glu Pro Gly Asp Met Ala Ala Ala 20 25 30

Val Pro Arg Ala Ala Phe Leu Ser Pro Leu Leu Pro Leu Leu Gly 35 40

Phe Leu Leu Ser Ala Pro His Gly Gly Ser Gly Leu His Thr Lys 50 55 60

Gly Ala Leu Pro Leu Asp Thr Val Thr Phe Tyr Lys Val Ile Pro Lys 65 70 75 80

Ser Lys Phe Val Leu Val Lys Phe Asp Thr Gln Tyr Pro Tyr Gly Glu

1479

85 95 90 Lys Gln Asp Glu Phe Lys Arg Leu Ala Glu Asn Ser Ala Ser Ser Asp 105 Asp Leu Leu Val Ala Glu Val Gly Ile Ser Asp Tyr Gly Asp Lys Leu 120 Asn Met Glu Leu Ser Glu Lys Tyr Lys Leu Asp Lys Glu Ser Tyr Pro Val Phe Tyr Leu Phe Arg Asp Gly Asp Phe Glu Asn Pro Val Pro Tyr 145 150 155 Thr Gly Ala Val Lys Val Gly Ala Ile Gln Arg Trp Leu Lys Gly Gln 165 170 Gly Val Tyr Leu Gly Met Pro Gly Cys Leu Pro Val Tyr Asp Ala Leu 185

Ala Gly Glu Phe Ile Arg Ala Ser Gly Val Glu Ala Arg Gln Ala Leu

Leu Lys Gln Gly Gln Asp Asn Leu Ser Ser Val Lys Glu Thr Gln Lys
210 220

Lys Trp Ala Glu Gln Tyr Leu Lys Ile Met Gly Lys Ile Leu Asp Gln 225 230 235 240

Gly Glu Asp Phe Pro Ala Ser Glu Met Thr Arg Ile Ala Arg Leu Ile
245 250 255

Glu Lys Asn Lys Met Ser Asp Gly Lys Lys Glu Glu Leu Gln Lys Ser 260 265 270

Leu Asn Ile Leu Thr Ala Phe Gln Lys Lys Gly Ala Glu Lys Glu Glu 275 280 285

Leu

<210> 1409

<211> 488

<212> PRT

<213> Homo sapiens

<400> 1409

Pro Ala Ser Ala Gly Thr Val Ser Glu Gly Pro Pro Gly Thr Asp Gly
1 5 10 15

Ser Ala Gly Arg Gly Gly Thr Ala Phe Ala Met Ala Ala Thr Val Asn Leu Glu Leu Asp Pro Ile Phe Leu Lys Ala Leu Gly Phe Leu His Ser 40 Lys Ser Lys Asp Ser Ala Glu Lys Leu Lys Ala Leu Leu Asp Glu Ser Leu Ala Arg Gly Ile Asp Ser Ser Tyr Arg Pro Ser Gln Lys Asp Val 75 Glu Pro Pro Lys Ile Ser Ser Thr Lys Asn Ile Ser Ile Lys Gln Glu Pro Lys Ile Ser Ser Ser Leu Pro Ser Gly Asn Asn Asn Gly Lys Val 105 Leu Thr Thr Glu Lys Val Lys Lys Glu Ala Glu Lys Arg Pro Ala Asp 120 Lys Met Lys Ser Asp Ile Thr Glu Gly Val Asp Ile Pro Lys Lys Pro 135 Arg Leu Glu Lys Pro Glu Thr Gln Ser Ser Pro Ile Thr Val Gln Ser 155 Ser Lys Asp Leu Pro Met Ala Asp Leu Ser Ser Phe Glu Glu Thr Ser 165 170 Ala Asp Asp Phe Ala Met Glu Met Gly Leu Ala Cys Val Val Cys Arg 185 Gln Met Met Val Ala Ser Gly Asn Gln Leu Val Glu Cys Gln Glu Cys 200 His Asn Leu Tyr His Arg Asp Cys His Lys Pro Gln Val Thr Asp Lys 210 Glu Ala Asn Asp Pro Arg Leu Val Trp Tyr Cys Ala Arg Cys Thr Arg 235 Gln Met Lys Arg Met Ala Gln Lys Thr Gln Lys Pro Pro Gln Lys Pro Ala Pro Ala Val Val Ser Val Thr Pro Ala Val Lys Asp Pro Leu Val Lys Lys Pro Glu Thr Lys Leu Lys Gln Glu Thr Thr Phe Leu Ala Phe 280 285

Lys Arg Thr Glu Val Lys Thr Ser Thr Val Ile Ser Gly Asn Ser Ser 295 Ser Ala Ser Val Ser Ser Ser Val Thr Ser Gly Leu Thr Gly Trp Ala Ala Phe Ala Ala Lys Thr Ser Ser Ala Gly Pro Ser Thr Ala Lys Leu Ser Ser Thr Thr Gln Asn Asn Thr Gly Lys Pro Ala Thr Ser Ser Ala 345 Asn Gln Lys Pro Val Gly Leu Thr Gly Leu Ala Thr Ser Ser Lys Gly 360 Gly Ile Gly Ser Lys Ile Gly Ser Asn Asn Ser Thr Thr Pro Thr Val 375 Pro Leu Lys Pro Pro Pro Pro Leu Thr Leu Gly Lys Thr Gly Leu Ser 390 395 Arg Ser Val Ser Cys Asp Asn Val Ser Lys Val Gly Leu Pro Ser Pro Ser Ser Leu Val Pro Gly Ser Ser Ser Gln Leu Ser Gly Asn Gly Asn 425 Ser Gly Thr Ser Gly Pro Ser Gly Ser Thr Thr Ser Lys Thr Thr Ser 440 Glu Ser Ser Ser Pro Ser Ala Ser Leu Lys Gly Pro Thr Ser Gln 450 455 460 Glu Ser Gln Leu Asn Ala Met Lys Arg Leu Gln Met Val Lys Lys 470 475 Ala Ala Gln Lys Lys Leu Lys Lys

<210> 1410

<211> 64

<212> PRT

<213> Homo sapiens

485

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1410

His Tyr Gly Leu Lys Leu Ala Val Lys Met Pro Asn Thr Val Val Pro
1 5 10 15

Trp Asn Pro Val Tyr Ser Cys Ala Lys Gln Asn Cys Lys Ile Val Lys 20 25 30

Met Ser Tyr Gln Val Ile Arg Arg Leu Gln Arg His His Leu Phe Phe 35 40 45

Ile Ser Phe Phe Xaa Leu Thr His Val Val Val Ile Phe Asn Thr Phe 50 55 60

<210> 1411

<211> 129

<212> PRT

<213> Homo sapiens

<400> 1411

Ala Ala Cys Leu Ala Leu Arg Ile Ala Ala Ala Met Ala Ser Gln Ser 1 5 10 15

Gln Gly Ile Gln Gln Leu Leu Gln Ala Glu Lys Arg Ala Ala Glu Lys 20 25 30

Val Ser Glu Ala Arg Lys Arg Lys Asn Arg Arg Leu Lys Gln Ala Lys 35 40 45

Glu Glu Ala Gln Ala Glu Ile Glu Gln Tyr Arg Leu Gln Arg Glu Lys 50 60

Glu Phe Lys Ala Lys Glu Ala Ala Ala Leu Gly Ser Arg Gly Ser Cys
65 70 75 80

Ser Thr Glu Val Glu Lys Glu Thr Gln Glu Lys Met Thr Ile Leu Gln 85 90 95

Thr Tyr Phe Arg Gln Asn Arg Asp Glu Val Leu Asp Asn Leu Leu Ala 100 105 110

Phe Val Cys Asp Ile Arg Pro Glu Ile His Glu Asn Tyr Arg Ile Asn 115 120 125

Gly

<21	0> 1: 1> 1: 2> P:	77													
<21	3> н	omo :	sapi	ens											
	0> 1 Thr		Pro	Ser 5	Ser	Ser	Ala	Ala	Gly 10	Thr	Leu	Phe	Gln	Gly 15	Leu
Суз	Gly	Ala	Pro 20	Asp	Ala	Pro	His	Pro 25	Leu	Ser	ГÀЗ	Ile	Pro 30	Gly	Gly
Arg	Gly	Gly 35	Gly	Arg	Asp	Pro	Ser 40	Leu	Ser	Ala	Leu	Ile 45	Tyr	Lys	Asp
Glu	Lys 50	Leu	Thr	Val	Thr	Gln 55	Asp	Leu	Pro	Val	Asn 60	Asp	Gly	Lys.	Pro
His 65	Ile	Val	His	Phe	Gln 70	Tyr	Glu	Val	Thr	Glu 75	Val	Lys	Val	Ser	Ser 80
Trp	Asp	Ala	Val	Leu 85	Ser	Ser	Gln	Ser	Leu 90	Phe	Val	Glu	Ile	Pro 95	Asp
Gly	Leu	Leu	Ala 100	Asp	Gly	Ser	Lys	Glu 105	Gly	Leu	Leu	Ala	Leu 110	Leu	Glu
Phe	Ala	Glu 115	Glu	Lys	Met	Lys	Val 120	Asn	Tyr	Val	Phe	Ile 125	Суз	Phe	Arg
Lys	Gly 130	Arg	Glu	Asp	Arg	Ala 135	Pro	Leu	Leu	Lys	Thr 140	Phe	Ser	Phe	Leu
Gly 145	Phe	Glu	Ile	Val	Arg 150	Pro	Gly	His	Pro	Cys 155	Val	Pro	Ser	Arg	Pro 160

Asp Val Met Phe Met Val Tyr Pro Leu Asp Gln Asn Leu Ser Asp Glu

175

Asp

<210> 1413

<211> 112

<212> PRT

<213> Homo sapiens

<400	)> 14	113													
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Arg	Pro	Asn	Lys 20	Val	Leu	Arg	Tyr	Lys 25	Pro	Pro	Pro	Ser	Glu 30	Cys	Asr
Pro	Ala	Leu 35	Asp	Asp	Pro	Thr	Pro 40	Asp	Tyr	Met	Asn	Leu 45	Leu	Gly	Met
Ile	Phe 50	Ser	Met	Суѕ	Gly	Leu 55	Met	Leu	Lys	Leu	Lys 60	Trp	Cys	Ala	Tr
Val 65	Ala	Val	туг	Суз	Ser 70	Phe	Ile	Ser	Phe	Ala 75	Asn	Ser	Arg	Ser	Ser 80
Glu	Asp	Thr	Lys	Gln 85	Met	Met	Ser	Ser	Phe 90	Met	Leu	Ser	Ile	Ser 95	Ala
Val	Val	Met	Ser 100	туг	Leu	Gln	Asn	Pro 105	Gln	Pro	Met	Thr	Pro 110	Pro	Trp
<211 <212	)> 14 .> 18 !> PF	36 RT													
<213	i> Hc	omo s	sapie	ens						,				÷	

Arg Gly Cys Ser Pro Gly Ser Ala Arg Pro Pro Leu Ser Pro Ala Thr

105 Gly Trp Arg Cys Arg Ala Arg Ala Ala Ser Arg Arg Phe Pro Gly 120 Ala Pro Gly Pro Glu Glu Arg Ser Pro Gln Ser Lys Gly Gly Asn Thr 130 135 Cys Leu Arg Cys Lys Glu Ile Leu Phe Gln Ser Ile Pro Val Val Gln 150 155 Thr Asp Thr Val Pro Asn Glu Arg Ser Asp Val Phe Ser Ser Pro Phe 170 Leu Ile Cys Phe Leu Thr Gly Leu Arg Phe 180 <210> 1415 <211> 108 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (46) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (68) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1415 Thr Lys Thr Thr Leu Phe Leu Glu Arg Pro Leu Phe Lys Lys Glu Ser 10 Ile Thr Pro Thr Val Glu Leu Asn Ala Leu Cys Met Lys Leu Gly Lys Lys Pro Met Tyr Lys Pro Val Asp Pro Tyr Ser Arg Met Xaa Ser Thr Tyr Asn Tyr Asn Met Arg Gly Gly Ala Tyr Pro Pro Arg Tyr Phe Tyr Pro Phe Pro Xaa Pro Pro Leu Leu Tyr Gln Val Glu Leu Ser Val Gly

70

1486

Gly Gln Gln Phe Asn Gly Lys Gly Lys Thr Arg Gln Ala Ala Lys His
85 90 95

Asp Ala Ala Lys Ala Val Glu Asp Pro Ala Glu 100 105

<210> 1416

<211> 621

<212> PRT

<213> Homo sapiens

<400> 1416

Ala Gly His Arg Ala Gly Val Cys Ser Leu Ser Ala Thr Arg Leu Leu 1 5 10 15

Leu Pro Lys Asp Arg Gly Val Gly Arg Arg Gln Thr Met Trp Thr Leu 20 25 30

Val Ser Trp Val Ala Leu Thr Ala Gly Leu Val Ala Gly Thr Arg Cys 35 40 45

Pro Asp Gly Gln Phe Cys Pro Val Ala Cys Cys Leu Asp Pro Gly Gly 50 60

Ala Ser Tyr Ser Cys Cys Arg Pro Leu Leu Asp Lys Trp Pro Thr Thr
65 70 75 80

Leu Ser Arg His Leu Gly Gly Pro Cys Gln Val Asp Ala His Cys Ser 85 90 95

Ala Gly His Ser Cys Ile Phe Thr Val Ser Gly Thr Ser Ser Cys Cys
100 105 110

Pro Phe Pro Glu Ala Val Ala Cys Gly Asp Gly His His Cys Cys Pro 115 120 125

Arg Gly Phe His Cys Ser Ala Asp Gly Arg Ser Cys Phe Gln Arg Ser 130 135 140

Gly Asn Asn Ser Val Gly Ala Ile Gln Cys Pro Asp Ser Gln Phe Glu 145 150 155 160

Cys Pro Asp Phe Ser Thr Cys Cys Val Met Val Asp Gly Ser Trp Gly
165 170 175

Cys Cys Pro Met Pro Gln Ala Ser Cys Cys Glu Asp Arg Val His Cys 180 185 190

Cys	Pro	His 195	Gly	Ala	Phe	Cys	Asp 200	Leu	Val	His	Thr	Arg 205	Cys	Ile	Thr
Pro	Thr 210	Gly	Thr	His	Pro	Leu 215	Ala	Lys	Lys	Leu	Pro 220	Ala	Gln	Arg	Thr
Asn 225	Arg	Ala	Val	Ala	Leu 230	Ser	Ser	Ser	Val	Met 235	_	Pro	Asp	Ala	Arg 240
Ser	Arg	Суз	Pro	Asp 245	Gly	Ser	Thr	Суѕ	Cys 250	Glu	Leu	Pro	Ser	Gly 255	Lys
Tyr	Gly	Суз	Cys 260	Pro	Met	Pro	Asn	Ala 265	Thr	Суз	Cys	Ser	Asp 270	His	Leu
		275			Asp		280					285			_
	290				Ala	295					300				
305					Val 310					315					320
				325	Arg				330					335	
			340		Суз			345					350		
		355			Thr		360					365			
	370				Glu	375					380				-
385					Arg 390					395					400
				405	Cys				410	•				415	
			420		Ala			425					430		
		435			Суз		440					445			
	Ile 450	Val	Ala	Gly	Leu	Glu 455		Met	Pro		Arg	Arg	Ala	Ser	Leu

Ser His Pro Arg Asp Ile Gly Cys Asp Gln His Thr Ser Cys Pro Val 465 Gly Gln Thr Cys Cys Pro Ser Leu Gly Gly Ser Trp Ala Cys Cys Gln 490 485 Leu Pro His Ala Val Cys Cys Glu Asp Arg Gln His Cys Cys Pro Ala 505 Gly Tyr Thr Cys Asn Val Lys Ala Arg Ser Cys Glu Lys Glu Val Val 520 Ser Ala Gln Pro Ala Thr Phe Leu Ala Arg Ser Pro His Val Gly Val-Lys Asp Val Glu Cys Gly Glu Gly His Phe Cys His Asp Asn Gln Thr 550 Cys Cys Arg Asp Asn Arg Gln Gly Trp Ala Cys Cys Pro Tyr Arg Gln 565 570 Gly Val Cys Cys Ala Asp Arg Arg His Cys Cys Pro Ala Gly Phe Arg 585 Cys Ala Ala Arg Gly Thr Lys Cys Leu Arg Arg Glu Ala Pro Arg Trp 600 Asp Ala Pro Leu Arg Asp Pro Ala Leu Arg Gln Leu Leu 610 615 <210> 1417 <211> 340 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (10) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (24) <223> Xaa equals any of the naturally occurring L-amino acids

Ser Ala His Ala Ser Glu Arg Ile Ala Xaa Ser Gly Cys Gly Ala Pro

Ala	Ala	Gly	Ala 20	Gly	Pro	Arg	Xaa	Arg 25	Ser	Leu	Gly	Ala	Asp 30	Pro	Gly
Arg	Ala	Ala 35	Arg	Arg	His	Glu	Gly 40	Gln	Gly	Gly	Glu	Gly 45	Gly	Arg	Arg
Thr	Ala 50	Gly	Arg	Trp	Arg	Arg 55	Lys	Pro	Glu	Lys	Ser 60	Pro	Ser	Ala	Gln
Glu 65	Leu	Lys	Glu	Gln	Gly 70	Asn	Arg	Leu	Phe	Val 75	Gly	Arg	Lys	Tyr	Pro 80
Glu	Ala	Ala	Ala	Суs 85	Tyr	Gly	Arg	Ala	Ile 90	Thr	Arg	Asn	Pro	Leu 95	Val
Ala	Val	Tyr	Tyr 100	Thr	Asn	Arg	Ala	Leu 105	Суз	Tyr	Leu	Lys	Met 110	Gln	Gln
His	Glu	Gln 115	Ala	Leu	Ala	Asp	Cys 120	Arg	Arg	Ala	Leu	Glu 125	Leu	Asp	Gly
Gln	Ser 130	Val	Lys	Ala	His	Phe 135	Phe	Leu	Gly	Gln	Cys 140	Gln	Leu	Glu	Met
Glu 145	Ser	Tyr	Asp	Glu	Ala 150	Ile	Ala	Asn	Leu	Gln 155	Arg	Ala	Tyr	Ser	Leu 160
Ala	Lys	Glu	Gln	Arg 165	Leu	Asn	Phe	Gly	Asp 170	Asp	Ile	Pro	Ser	Ala 175	Leu
Arg	Ile	Ala	Lys 180	Lys	Lys	Arg	Trp	Asn 185	Ser	Ile	Glu	Glu	Arg 190	Arg	Ile
His	Gln	Glu 195	Ser	Glu	Leu	His	Ser 200	Tyr	Leu	Ser	Arg	Leu 205	Ile	Ala	Ala
	210					215					220		Glu		
225					230					235			Glu		240
His	Asp	Lys	Tyr	Met 245	Ala	Asp	Met	Asp	G1u 250	Leu	Phe	Ser	Gln	Val 255	Asp
Glu	Lys	Arg	Lys 260	Lys	Arg	Asp	Ile	Pro 265	Asp	Tyr	Leu	Cys	Gly 270	Lys	Ile
Ser	Phe	Glu 275	Leu	Met	Arg		Pro 280	_				Ser 285	Gly	Ile	Thr

Tyr Asp Arg Lys Asp Ile Glu Glu His Leu Gln Arg Val Gly His Phe 290 295 300

Asp Pro Val Thr Arg Ser Pro Leu Thr Gln Glu Gln Leu Ile Pro Asn 305 310 315 320

Leu Ala Met Lys Glu Val Ile Asp Ala Phe Ile Ser Glu Asn Gly Trp 325 330 335

Val Glu Asp Tyr 340

<210> 1418

<211> 235

<212> PRT

<213> Homo sapiens

<400> 1418

Ser Pro Arg Pro Leu Arg Phe Cys Gly Gly Ala Arg Ala Arg Pro 1 5 10 15

Leu Ser Ala Val Ala Arg Pro Ala Arg Ser Ser Asp Pro Leu Arg Ser 20 25 30

Ala Pro Leu Gly Pro Ala Pro Pro Val Asn Met Ile Arg Cys Gly Leu 35 40 45

Ala Cys Glu Arg Cys Arg Trp Ile Leu Pro Leu Leu Leu Ser Ala
50 60

Ile Ala Phe Asp Ile Ile Ala Leu Ala Gly Arg Gly Trp Leu Gln Ser
65 70 75 80

Ser Asp His Gly Gln Thr Ser Ser Leu Trp Trp Lys Cys Ser Gln Glu 85 90 95

Gly Gly Gly Ser Gly Ser Tyr Glu Glu Gly Cys Gln Ser Leu Met Glu 100 105 110

Tyr Ala Trp Gly Arg Ala Ala Ala Ala Met Leu Phe Cys Gly Phe Ile 115 120 125

Ile Leu Val Ile Cys Phe Ile Leu Ser Phe Phe Ala Leu Cys Gly Pro 130 135 140

Gln Met Leu Val Phe Leu Arg Val Ile Gly Gly Leu Leu Ala Leu Ala 145

Ala Val Phe Gln Ile Ile Ser Leu Val Ile Tyr Pro Val Lys Tyr Thr

1491

165 170 175

Gln Thr Phe Thr Leu His Ala Asn Arg Ala Val Thr Tyr Ile Tyr Asn 180 185 190

Trp Ala Tyr Gly Phe Gly Trp Ala Ala Thr Ile Ile Leu Ile Gly Cys 195 200 205

Ala Phe Phe Cys Cys Leu Pro Asn Tyr Glu Asp Asp Leu Leu Gly 210 215 220

Asn Ala Lys Pro Arg Tyr Phe Tyr Thr Ser Ala 225 230 235

<210> 1419

<211> 86

<212> PRT

<213> Homo sapiens

<400> 1419

Arg Arg Gln Ala Leu Gln Glu Arg Cys Pro Phe Asn Pro Leu Ser Ala 1 5 10 15

Leu Asp Arg Arg Cys Cys Val Lys Leu Leu Met Asp Ile Tyr Met Arg 20 25 30

Ser Ser Phe Leu Tyr Ala Ile Pro Ala Val Phe Phe Phe Leu Thr Gly 35 40 45

Pro Cys Leu Arg Ile Asn Lys Ser Val Met Ser Glu Thr Lys Val Tyr 50 55 60

Ser Ser Val Cys Arg Cys Val Ala Pro Pro Phe Ser Pro Ala Ala Pro 65 70 75 80

His Ile Gln Ser Arg Ser

85

<210> 1420

<211> 351

<212> PRT

<213> Homo sapiens

<400> 1420

Thr Trp Cys Thr Thr Met Leu Ala Ala Arg Leu Val Cys Leu Arg
1 5 10 15

THE	Leu	PIO	20	Arg	val	Pne	HIS	25	Ala	Pne	Thr	гÀз	30	ser	PIC
Val	Val	Lys 35	Asn	Ser	Ile	Thr	Lys 40	Asn	Gln	Trp	Leu	Leu 45	Thr	Pro	Ser
Arg	Glu 50	Tyr	Ala	Thr	Lys	Thr 55	Arg	Ile	Gly	Ile	Arg 60	Arg	Gly	Arg	Thr
Gly 65	Gln	Glu	Leu	Lys	Glu 70	Ala	Ala	Leu	Glu	Pro 75	Ser	Met	Glu	Lys	Ile 80
Phe	Lys	Ile	Asp	Gln 85	Met	Gly	Arg	Trp	Phe 90	Val	Ala	Gly	Gly	Ala 95	Ala
Val	Gly	Leu	Gly 100	Ala	Leu	Cys	Tyr	Tyr 105	Gly	Leu	Gly	Leu	Ser 110	Asn	Glu
Ile	Gly	Ala 115	Ile	Glu	Lys	Ala	Val 120	Ile	Trp	Pro	Gln	Tyr 125	Val	Lys	Asp
Arg	Ile 130	His	Ser	Thr	Tyr	Met 135	Tyr	Leu	Ala	Gly	Ser 140	Ile	Gly	Leu	Thr
Ala 145	Leu	Ser	Ala	Ile	Ala 150	Ile	Ser	Arg	Thr	Pro 155	Val	Leu	Met	Asn	Phe 160
Met	Met	Arg	Gly	Ser 165	Trp	Val	Thr	Ile	Gly 170	Val	Thr	Phe	Ala	Ala 175	Met
Val	Gly	Ala	Gly 180	Met	Leu	Val	Arg	Ser 185	Ile	Pro	Tyr	Asp	Gln 190	Ser	Pro
Gly	Pro	Lys 195	His	Leu	Ala	Trp	Leu 200	Leu	His	Ser	Gly	Val 205	Met	Gly	Ala
Val	Val 210	Ala	Pro	Leu	Thr	Ile 215	Leu	Gly	Gly	Pro	Leu 220	Leu	Ile	Arg	Ala
Ala 225	Trp	Tyr	Thr	Ala	Gly 230	Ile	Val	Gly	Gly	Leu 235	Ser	Thr	Val	Ala	Met 240
Суз	Ala	Pro	Ser	Glu 245	Lys	Phe	Leu	Asn	Met 250	Gly	Ala	Pro	Leu	Gly 255	Val
Gly	Leu	Gly	Leu 260	Val	Phe	Val	Ser	Ser 265	Leu	Gly	Ser	Met	Phe 270	Leu	Pro
Pro	Thr	Thr	Val	Ala	Gly	Ala	Thr	Leu	Tyŗ	Ser	Val	Ala	Met	Tyr	Gly

Gly Leu Val Leu Phe Ser Met Phe Leu Leu Tyr Asp Thr Gln Lys Val 290 295 300

Ile Lys Arg Ala Glu Val Ser Pro Met Tyr Gly Val Gln Lys Tyr Asp 305 310 315 320

Pro Ile Asn Ser Met Leu Ser Ile Tyr Met Asp Thr Leu Asn Ile Phe 325 330 335

Met Arg Val Ala Thr Met Leu Ala Thr Gly Gly Asn Arg Lys Lys 340 345 350

<210> 1421

<211> 81

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1421

Cys Gly Xaa Leu Leu Met Ala Gln Gly Leu Ser Ala Ser Ala Leu Glu
1 5 10 15

Gly Leu Lys Thr Glu Glu Gly Ser Val Arg Gly Ala Leu Pro Ala Val 20 25 30

Ser Ser Pro Pro Ala Pro Val Ser Pro Ser Ser Pro Thr Thr His Asn
 35
 40
 45

Gly Glu Leu Glu Pro Ser Phe Ser Pro Leu Leu Gly Glu Gly Lys Thr
50 55 60

Pro Glu Thr Leu Leu Pro Gln Lys Cys Trp Gly Gln Gly Gly Pro Gly 65 70 75 80

Arg

<210> 1422

<211> 484

<212> PRT

<213> Homo sapiens

<400> 1422

1	Cys	nry	Ser	5	neu	Val	vəħ	PLO	10	ASII	261	AIG	GIII	15	ALY
Arg	Ala	Leu	Gly 20	Pro	Leu	Pro	Pro	Cys 25	Ser	Phe	Ala	Leu	Gln 30	Leu	Gly
Met	Ala	Gly 35	Tyr	Leu	Arg	Val	Val 40	Arg	Ser	Leu	Суз	Arg 45	Ala	Ser	Gly
Ser	Arg 50	Pro	Ala	Trp	Ala	Pro 55	Ala	Ala	Leu	Thr	Ala 60	Pro	Thr	Ser	Gln
Glu 65	Gln	Pro	Arg	Arg	His 70	Tyr	Ala	Asp	Lys	Arg 75	Ile	Lys	Val	Ala	Eys
Pro	Val	Val	Glu	Met 85	Asp	Gly	Asp	Glu	Met 90	Thr	Arg	Ile	Ile	Trp 95	Gln
Phe	Ile	Lys	Glu 100	Lys	Leu	Ile	Leu	Pro 105	His	Val	Asp	Ile	Gln 110	Leu	Lys
Tyr	Phe	Asp 115	Leu	Gly	Leu	Pro	Asn 120	Arg	Asp	Gln	Thr	Asp 125	Asp	Gln	Val
Thr	11e 130	Asp	Ser	Ala	Leu	Ala 135	Thr	Gln	Lys	Tyr	Ser 140	Val	Ala	Val	Lys
Cys 145	Ala	Thr	Ile	Thr	Pro 150	Asp	Glu	Ala	Arg	Val 155	Glu	Glu	Phe	Lys	Leu 160
				165					170	Ile				175	
Gly	Thr	Val	Phe 180	Arg	Glu	Pro	Ile	Ile 185	Cys	Lys	Asn	Ile	Pro 190	Arg	Leu
		195			_		200			Gly		205			-
	210					215				Asp	220				
225					230					Gly 235					240
				245					250	Met				255	
qeA	Glu	Ser	Ile 260	Ser	Gly	Phe	Ala	His 265	Ser	Cys	Phe	Gln	<b>Tyr</b> 270	Ala	Ile

1495

Gln Lys Lys Trp Pro Leu Tyr Met Ser Thr Lys Asn Thr Ile Leu Lys 275 280 285

Ala Tyr Asp Gly Arg Phe Lys Asp Ile Phe Gln Glu Ile Phe Asp Lys 290 295 300

His Tyr Lys Thr Asp Phe Asp Lys Asn Lys Ile Trp Tyr Glu His Arg 305 310 315 320

Leu Ile Asp Asp Met Val Ala Gln Val Leu Lys Ser Ser Gly Gly Phe 325 330 335

Val Trp Ala Cys Lys Asn Tyr Asp Gly Asp Val Gln Ser Asp Ile Leu 340 345 350

Ala Gln Gly Phe Gly Ser Leu Gly Leu Met Thr Ser Val Leu Val Cys 355 360 365

Pro Asp Gly Lys Thr Ile Glu Ala Glu Ala Ala His Gly Thr Val Thr 370 380

Arg His Tyr Arg Glu His Gln Lys Gly Arg Pro Thr Ser Thr Asn Pro 385 390 395 400

Ile Ala Ser Ile Phe Ala Trp Thr Arg Gly Leu Glu His Arg Gly Lys
405 410 415

Leu Asp Gly Asn Gln Asp Leu Ile Arg Phe Ala Gln Met Leu Glu Lys
420 425 430

Val Cys Val Glu Thr Val Glu Ser Gly Ala Met Thr Lys Asp Leu Ala 435 440 445

Gly Cys Ile His Gly Leu Ser Asn Val Lys Leu Asn Glu His Phe Leu 450 455 460

Asn Thr Thr Asp Phe Leu Asp Thr Ile Lys Ser Asn Leu Asp Arg Ala 465 470 475 480

Leu Gly Arg Gln

<210> 1423

<211> 240

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

	2> (	•													
<22	3> X	aa e	qual	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
<40	0> 1	423													
Val 1	Arg	Ile	Pro	Gly 5	Ser	Thr	His	Ala	Ser 10	_	Gly	Gly	Asp	Gly 15	Ası
Met	Glu	Ser	Gly 20	Ala	Tyr	Gly	Ala	Ala 25	Lys	Ala	Gly	Gly	Ser 30	Phe	Ası
Leu	Arg	Arg 35	Phe	Leu	Thr	Gln	Pro 40	Gln	Val	Val	Ala	Arg 45	Ala	Val	Cys
Leu	Val 50	Phe	Ala	Leu	Ile	Val 55	Phe	Ser	Суз	Ile	Tyr 60	Gly	Glu	Gly	Туз
Ser 65	Asn	Ala	His	Glu	Ser 70	Lys	Gln	Met	Tyr	Cys 75	Val	Phe	Asn	Arg	Asr 80
Glu	Asp	Ala	Суз	Arg 85	Tyr	Gly	Ser	Ala	Ile 90	Gly	Val	Leu	Ala	Phe 95	Leu
Ala	Ser	Ala	Phe 100	Phe	Leu	Val	Val	Asp 105	Ala	Tyr	Phe	Pro	Gln 110	Ile	Ser
Asn	Ala	Thr 115	Asp	Arg	Lys	Tyr	Leu 120	Val	Ile	Gly	Asp	Leu 125	Leu	Phe	Ser
Ala	Leu 130	Trp	Thr	Phe	Leu	Trp 135	Phe	Val	Gly	Phe	Cys 140	Phe	Leu	Thr	Asn
Gln 145	Trp	Ala	Val	Thr	Asn 150	Pro	Lys	Xaa	Val	Leu 155	Val	Gly	Ala	Asp	Ser 160
Val	Arg	Ala	Ala	11e 165	Thr	Phe	Ser	Phe	Phe 170	Ser	Ile	Phe	Ser	Trp 175	Gly
Val	Leu	Ala	Ser 180	Leu	Ala	Tyr	Gln	Arg 185	Tyr	Lys	Ala	Gly	Val 190	Asp	Asp
Phe	Ile	Gln 195	Asn	Tyr	Val	Asp	Pro 200	Thr	Pro	Asp	Pro	Asn 205	Thr	Ala	Tyr
Ala	Ser 210	Tyr	Pro	Gly	Ala	Ser 215	Val	Asp	Asn	Tyr	Gln 220	Gln	Pro	Pro	Phe
Thr 225	Gln	Asn	Ala	Glu	Thr 230	Thr	Glu	Gly	Tyr	Gln 235	Pro	Pro	Pro	Val	Tyr 240

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<210> 1424
<211> 244
<212> PRT
<213> Homo sapiens
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<222> (59)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (62)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (221)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1424
Arg Val Arg Arg Gln Ser Ser Gly Asn Leu Thr Met Ala Trp Thr Pro
                                     10
Leu Leu Pro Leu Leu Thr Phe Cys Thr Val Ser Glu Ala Ser Tyr
                                 25
Glu Leu Thr Gln Pro Pro Ser Val Ser Val Ser Pro Gly Gln Thr Ala
                             40
Arg Ile Thr Cys Ser Gly Asp Ala Leu Pro Xaa Lys Tyr Xaa Tyr Trp
Tyr Gln Gln Lys Ser Gly Gln Ala Pro Val Leu Val Ile Tyr Glu Asp
                    70
Thr Arg Arg Pro Ser Ala Ile Pro Glu Arg Phe Ser Ala Ser Ser Ser
                85
                                    90
Gly Thr Met Ala Thr Leu Thr Ile Ser Gly Ala Gln Val Glu Asp Glu
                                105
Ala Asp Tyr Tyr Cys Tyr Ser Thr Asp Ser Ser Ser Tyr Tyr Arg Val
                            120
Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gln Pro Lys Ala Ala
   130
                       135
```

Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu Leu Gln Ala Asn 145 150 Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr Pro Gly Ala Val 165 170 Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val Lys Ala Gly Val Glu 185 Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr Ala Ala Ser Ser 200 Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His Xaa Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys Thr Val Ala Pro 225 230 235 Thr Glu Cys Ser <210> 1425 <211> 173 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (1) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (115) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (136) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (137) <223> Xaa equals any of the naturally occurring L-amino acids <220>

<221> SITE <222> (159)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1425

Xaa Val Arg Val Gln Thr Arg Gly Ser Ala Asp Pro Ala Gln Leu Arg 1 5 10 15

Arg His Pro Gly Tyr Lys Arg Thr Ala Ser Ala Thr Leu Ser Asp Pro 20 25 30

Ala Ala Ala Met Gln Pro Ser Ser Leu Leu Pro Leu Ala Leu Cys
35 40 45

Leu Leu Ala Ala Pro Ala Ser Ala Leu Val Arg Ile Pro Leu His Lys
50 55 60

Phe Thr Ser Ile Arg Arg Thr Met Ser Glu Val Gly Gly Ser Val Glu 65 70 75 80

Asp Leu Ile Ala Lys Gly Pro Val Ser Lys Tyr Ser Gln Ala Val Pro 85 90 95

Ala Val Thr Glu Gly Pro Ile Pro Glu Val Leu Lys Asn Tyr Met Asp 100 105 110

Ala Gln Xaa Tyr Gly Glu Ile Gly Ile Gly Thr Pro Pro Gln Cys Phe 115 120 125

Thr Val Val Phe Asp Thr Gly Xaa Xaa Asn Leu Trp Val Pro Ser Ile 130 135 140

Ser Asp Lys Ser Ser Asn Tyr Val Lys Asn Gly Asn Ser 165 170

<210> 1426

<211> 351

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1426

Ile Arg His Glu Ile Leu Trp Leu Leu Cys Ser His Arg Pro Ala Pro 1 5 10 15

PCT/US00/05882

Gly	Arg	Pro	Pro 20	Thr	His	Asn	Ala	His 25	Asn	Trp	Arg	Leu	Gly 30	Gln	Ala
Pro	Ala	Хаа 35	Trp	Tyr	Asn	Asp	Thr 40	Tyr	Pro	Leu	Ser	Pro 45	Pro	Gln	Arg
Thr	Pro 50	Ala	Gly	Ile	Arg	Tyr 55	Arg	Ile	Ala	Val	Ile 60	Ala	Asp	Leu	Asp
Thr 65	Glu	Ser	Arg	Ala	Gln 70	Glu	Glu	Asn	Thr	Trp 75	Phe	Ser	Tyr	Leu	Eys
Lys	Gly	Tyr	Leu	Thr 85	Leu	Ser	Asp	Ser	Gly 90	Asp	Lys	Val	Ala	Val 95	Glu
Trp	Asp	Lys	Asp 100	His	Gly	Val	Leu	Glu 105	Ser	His	Leu	Ala	Glu 110	Lys	Gly
Arg	Gly	Met 115	Glu	Leu	Ser	Asp	Leu 120	Ile	Val	Phe	Asn	Gly 125	Lys	Leu	Tyr
Ser	Val 130	Asp	Asp	Arg	Thr	Gly 135	Val	Val	Tyr	Gln	Ile 140	Glu	Gly	Ser	Lys
Ala 145	Val	Pro	Trp	Val	Ile 150	Leu	Ser	Asp	Gly	Asp 155	Gly	Thr	Val	Glu	Lys 160
Gly	Phe	Lys	Ala	Glu 165	Trp	Leu	Ala	Val	Lys 170	Asp	Glu	Arg	Leu	Туг 175	Val
Gly	Gly	Leu	Gly 180	Lys	Glu	Trp	Thr	Thr 185	Thr	Thr	Gly	Asp	Val 190	Val	Asn
Glu	Asn	Pro 195	Glu	Trp	Val	Lys	Val 200	Val	Gly	Tyr	Lys	Gly 205	Ser	Val	Asp
His	Glu 210	Asn	Trp	Val	Ser	Asn 215	Tyr	Asn	Ala	Leu	Arg 220	Ala	Ala	Ala	Gly
11e 225	Gln	Pro	Pro	Gly	Tyr 230	Leu	Ile	His	Glu	Ser 235	Ala	Cys	Trp	Ser	Asp 240
Thr	Leu	Gln	Arg	Trp 245	Phe	Phe	Leu	Pro	Arg 250	Arg	Ala	Ser	Gln	Glu 255	Arg
Tyr	Ser	Glu	Lys 260	Asp	Asp	Glu	Arg	Lys 265	Gly	Ala	Asn	Leu	Leu 270	Leu	Ser
Ala	Ser	Pro 275	Asp	Phe	Gly		Ile	Ala	Val	Ser		Val 285	Gly	Ala	Val

Val Pro Thr His Gly Phe Ser Ser Phe Lys Phe Ile Pro Asn Thr Asp 295 Asp Gln Ile Ile Val Ala Leu Lys Ser Glu Glu Asp Ser Gly Arg Val Ala Ser Tyr Ile Met Ala Phe Thr Leu Asp Gly Arg Phe Leu Leu Pro Glu Thr Lys Ile Gly Ser Val Lys Tyr Glu Gly Ile Glu Phe Ile 340 345 <210> 1427 <211> 510 <212> PRT <213> Homo sapiens <400> 1427 Glu Arg Ser Trp Phe Ala Gln Val Arg Arg Leu Gly Pro His Gly Ala Val Ala Arg Leu Arg Val Arg Gly Leu Pro Gly Ala Gly Arg Gly Leu 30 Arg Leu Pro Ala Gly Ala Arg Ala Ala Arg Leu Gly Ala Ala Leu Ser Leu Glu Leu Ala Val Ser Gly Ala Arg Ala Cys Ala Pro Gly Thr Arg Leu Pro Arg Gly Pro Val Gly Gly Ser Trp Asp Ala Leu Ile Val Arg 65 70 Pro Val Arg Arg Trp Arg Arg Val Ala Val Gly Val Asn Ala Cys Val 90 Asp Val Val Leu Ser Gly Val Lys Leu Leu Gln Ala Leu Gly Leu Ser Pro Gly Asn Gly Lys Asp His Ser Ile Leu His Ser Arg Asn Asp Leu Glu Glu Ala Phe Ile His Phe Met Gly Lys Gly Ala Ala Ala Glu Arg 135

Phe Phe Ser Asp Lys Glu Thr Phe His Asp Ile Ala Gln Val Ala Ser

155

150

Glu	Phe	Pro	Gly	Ala 165	Gln	His	Tyr	Val	Gly 170	Gly	Asn	Ala	Ala	Leu 175	Ile
Gly	Gln	Lys	Phe 180	Ala	Ala	Asn	Ser	Asp 185	Leu	Lys	Val	Leu	Leu 190	Cys	Gly
Pro	Val	Gly 195	Pro	Lys	Leu	His	Glu 200	Leu	Leu	Asp	Asp	Asn 205	Val	Phe	Val
Pro	Pro 210	Glu	Ser	Leu	Gln	Glu 215	Val	Asp	Glu	Phe	His 220	Leu	Ile	Leu	Glu
Tyr 225	Gln	Ala	Gly	Glu	Glu 230	Trp	Gly	Gln	Leu	Lys 235	Ala	Pro	His	Ala	Asn 240
Arg	Phe	Ile	Phe	Ser 245	His	Asp	Leu	Ser	Asn 250	Gly	Ala	Met	Asn	Met 255	Leu
			260		Ser			265					270		
		275			Met		280					285			
	290				Val	295					300				
305					Glu 310					315					320
				325	Gln				330					335	
			340		Leu			345					350		
		355			Ser		360					365	_		
	370				Trp	375		_			380			-	
385					Thr 390					395					400
				405	Asp				410					415	
Ala	Ala	Gly	Ala	Arg	Val	Ala	Gly	Thr	Gln	Ala	Cys	Ala	Thr	Glu	Thr

Val Val Glu Trp His Arg Glu Gly Ile Ser Phe His Phe Thr Pro Val 465 470 475 480

Leu Val Cys Lys Asp Pro Ile Arg Thr Val Gly Leu Gly Asp Ala Ile 485 490 495

Ser Ala Glu Gly Leu Phe Tyr Ser Glu Val His Pro His Tyr 500 505 510

<210> 1428

<211> 316

<212> PRT

<213> Homo sapiens

<400> 1428

Pro Pro Leu Pro Pro Arg Ser Phe Pro Asn Leu Phe Ser Arg Pro Glu
1 5 10 15

Pro Leu Pro Glu Pro Gly Arg Arg Gly Cys Asn Arg Ser Arg Glu Pro 20 25 30

Ala Ala Arg Ala Pro Ser Pro Pro Pro Pro Phe Glu Gly Ala Pro Gly
35 40 45

Arg Ala Met Val Lys Val Thr Phe Asn Ser Ala Leu Ala Gln Lys Glu
50 60

Ala Lys Lys Asp Glu Pro Lys Ser Gly Glu Glu Ala Leu Ile Ile Pro 65 70 75 80

Pro Asp Ala Val Ala Val Asp Cys Lys Asp Pro Asp Asp Val Val Pro 85 90 95

Val Gly Gln Arg Arg Ala Trp Cys Trp Cys Met Cys Phe Gly Leu Ala 100 105 110

Phe Met Leu Ala Gly Val Ile Leu Gly Gly Ala Tyr Leu Tyr Lys Tyr 115 120 125

Phe Ala Leu Gln Pro Asp Asp Val Tyr Tyr Cys Gly Ile Lys Tyr Ile 130 135 140

Lys Asp Asp Val Ile Leu Asn Glu Pro Ser Ala Asp Ala Pro Ala Ala

Leu	Tyr	Gln	Thr	Ile 165	Glu	Glu	Asn	Ile	Lys 170	Ile	Phe	Glu	Glu	Glu 175	Glu
Val	Glu	Phe	Ile 180	Ser	Val	Pro	.Val	Pro 185	Glu	Phe	Ala	Asp	Ser 190	Asp	Pro
Ala	Asn	11e 195	Val	His	Asp	Phe	Asn 200	Lys	Lys	Leu	Thr	Ala 205	Tyr	Leu	Asp
Leu	Asn 210	Leu	Asp	Lys	Cys	Туг 215	Val	Ile	Pro	Leu	Asn 220	Thr	Ser	Ile	Val
Met 225	Pro	Pro	Arg	Asn	Leu 230	Leu	Glu	Leu	Leu	Ile 235	Asn	Ile	Lys	Ala	G1y 240
Thr	Tyr	Leu	Pro	Gln 245	Ser	Tyr	Leu	Ile	His 250	Glu	His	Met	Val	Ile 255	Thr
Asp	Arg	Ile	Glu 260	Asn	Ile	Asp	His	Leu 265	Gly	Phe	Phe	Ile	Tyr 270	Arg	Leu
Суз	His	Asp 275	Lys	Glu	Thr	Tyr	Lys 280	Leu	Gln	Arg	Arg	Glu 285	Thr	Ile	Lys
Gly	Ile 290	Gln	Lys	Arg	Glu	Ala 295	Ser	Asn	Суз	Phe	Ala 300	Ile	Arg	His	Phe
Glu 305	Asn	Lys	Phe	Ala	Val 310	Glu	Thr	Leu	Ile	Cys 315	Ser				
<210	)> 14	129													
	l> 39 !> PF	-													
		omo s	apie	ens											
<400	)> 14	129													
His 1	Thr	Arg	Val	Asp 5	Phe	Asn	Val	Pro	Met 10		Asn	Asn	Gln	Ile 15	Thr
Asn	Asn	Gln	Arg 20	Ile	Lys	Ala	Ala	Val 25	Pro	Ser	Ile	Lys	Phe 30	Cys	Leu
Ąsp	Asn	Gly 35	Ala	Lys	Ser	Val	Val 40	Leu	Met	Ser	His	Leu 45	Gly	Arg	Pro
Asp	Gly 50	Val	Pro	Met	Pro	Asp 55	Lys	Tyr	Ser	Leu	Glu 60	Pro	Val	Ala	Val

Glu 65	Leu	Lys	Ser	Leu	Leu 70	Gly	Lys	Asp	Val	Leu 75	Phe	Leu	Lys	Asp	80 CÀa
Val	Gly	Pro	Glu	Val 85	Glu	Lys	Ala	Cys	Ala 90	Asn	Pro	Ala	Ala	Gly 95	Ser
Val	Ile	Leu	Leu 100	Glu	Asn	Leu	Arg	Phe 105	His	Val	Glu	Glu	Glu 110	Gly	Lys
Gly	Lys	Asp 115	Ala	Ser	Gly	Asn	Lys 120	Val	Lys	Ala	Glu	Pro 125	Ala	Lys	Ile
Glu	Ala 130	Phe	Arg	Ala	Ser	Leu 135	Ser	Lys	Leu	Gly	Asp 140	Val	Tyr	Val	Asn
Asp 145	Ala	Phe	Gly	Thr	Ala 150	His	Arg	Ala	His	Ser 155	Ser	Met	Val	Gly	Val 160
Asn	Leu	Pro	Gln	Lys 165	Ala	Gly	Gly	Phe	Leu 170	Met	Lys	Lys	Glu	Leu 175	Asn
Tyr	Phe	Ala	Lys 180	Ala	Leu	Glu	Ser	Pro 185	Glu	Arg	Pro	Phe	Leu 190	Ala	Ile
Leu	Gly	Gly 195	Ala	Lys	Val	Ala	Asp 200	Lys	Ile	Gln	Leu	11e 205	Asn	Asn	Met
Leu	Asp 210	Lys	Val	Asn	Glu	Met 215	Ile	Ile	Gly	Gly	Gly 220	Met	Ala	Phe	Thr
Phe 225	Leu	Lys	Val	Leu	Asn 230	Asn	Met	Glu	Ile	Gly 235	Thr	Ser	Leu	Phe	Asp 240
Glu	Glu	Gly	Ala	Lys 245	Ile	Val	Lys	Asp	Leu 250	Met	Ser	Lys	Ala	Glu 255	Lys
Asn	Gly	Val	Lys 260	Ile	Thr	Leu	Pro	Val 265	Asp	Phe	Val	Thr	Ala 270	Asp	Lys
Phe	Asp	Glu 275	Asn	Ala	Lys	Thr	Gly 280	Gln	Ala	Thr	Val	Ala 285	Ser	Gly	Ile
Pro	Ala 290	Gly	Trp	Met	Gly	Leu 295	Asp	Cys	Gly	Pro	Glu 300	Ser	Ser	Lys	Lys
Tyr 305	Ala	Glu	Ala	Val	Thr 310	Arg	Ala	Lys	Gln	Ile 315	Val	Trp	Asn	Gly	Pro 320
Val	Gly	Val	Phe	Glu	Trp	Glu	Ala	Phe	Ala	Arg	Gly	Thr	Lys	Ala	Leu

Met Asp Glu Val Val Lys Ala Thr Ser Arg Gly Cys Ile Thr Ile Ile 340 345 350

Gly Gly Asp Thr Ala Thr Cys Cys Ala Lys Trp Asn Thr Glu Asp 355 360 365

Lys Val Ser His Val Ser Thr Gly Gly Gly Ala Ser Leu Glu Leu Leu 370 375 380

Glu Gly Lys Val Leu Pro Gly Val Asp Ala Leu Ser Asn Ile 385 390 395

<210> 1430

<211> 249

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (245)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1430

Pro Ala Met Gly Ala Ala Val Phe Phe Gly Cys Thr Phe Val Ala Phe 1 5 10 15

Gly Pro Ala Phe Ala Leu Phe Leu Ile Thr Val Ala Gly Asp Pro Leu 20 25 30

Arg Val Ile Ile Leu Val Ala Gly Ala Phe Phe Trp Leu Val Ser Leu 35 40 45

Leu Leu Ala Ser Val Val Trp Phe Ile Leu Val His Val Thr Asp Arg
50 60

Ser Asp Ala Arg Leu Gln Tyr Gly Leu Leu Ile Phe Gly Ala Ala Val 65 70 75 80

Ser Val Leu Leu Gln Glu Val Phe Arg Phe Ala Tyr Tyr Lys Leu Leu 85 90 95

Lys Lys Ala Asp Glu Gly Leu Ala Ser Leu Ser Glu Asp Gly Arg Ser

Pro Ile Ser Ile Arg Gln Met Ala Tyr Val Ser Gly Leu Ser Phe Gly
115 120 125

Ile Ile Ser Gly Val Phe Ser Val Ile Asn Ile Leu Ala Asp Ala Leu

1507

130 135 140 Gly Pro Gly Val Val Gly Ile His Gly Asp Ser Pro Tyr Tyr Phe Leu 155 Thr Ser Ala Phe Leu Thr Ala Ala Ile Ile Leu Leu His Thr Phe Trp 170 Gly Val Val Phe Phe Asp Ala Cys Glu Arg Arg Arg Tyr Trp Ala Leu Gly Leu Val Val Gly Ser His Leu Leu Thr Ser Gly Leu Thr Phe Leu 200 Asn Pro Trp Tyr Glu Ala Ser Leu Leu Pro Ile Tyr Ala Val Thr Val 215 Ser Met Gly Leu Trp Ala Phe Ile Thr Ala Gly Gly Ser Leu Arg Ser 230 235 Ile Gln Arg Ser Xaa Leu Cys Lys Asp <210> 1431 <211> 271 <212> PRT <213> Homo sapiens <400> 1431 Arg Pro Thr Arg Pro Val Met Ala Pro Arg Ser Leu Leu Leu Leu Leu Ser Gly Ala Leu Ala Leu Thr Asp Thr Trp Ala Gly Ser His Ser Leu Arg Tyr Phe Ser Thr Ala Val Ser Arg Pro Gly Arg Gly Glu Pro Arg 35 40 Tyr Ile Ala Val Glu Tyr Val Asp Asp Thr Gln Phe Leu Arg Phe Asp Ser Asp Ala Ala Ile Pro Arg Met Glu Pro Arg Glu Pro Trp Val Glu 75 Gln Glu Gly Pro Gln Tyr Trp Glu Trp Thr Thr Gly Tyr Ala Lys Ala

Asn Ala Gln Thr Asp Arg Val Ala Leu Arg Asn Leu Leu Arg Arg Tyr

105

Asn	Gln	Ser 115	Glu	Ala	Gly	Ser	His 120	Thr	Leu	Gln	Gly	Met 125	Asn	Gly	Cys
Asp	Met 130	Gly	Pro	Asp	Gly	Arg 135	Leu	Leu	Arg	Gly	Tyr 140	His	Gln	His	Ala
Туг 145	Asp	Gly	Lys	Asp	Tyr 150	Ile	Ser	Leu	Asn	Glu 155	Asp	Leu	Arg	Ser	Trp 160
Thr	Ala	Ala	Asp	Thr 165	Val	Ala	Gln	Ile	Thr 170	Gln	Arg	Phe	Tyr	Glu 175	Ala
Glu	Glu	Tyr	Ala 180	Glu	Glu	Phe	Arg	Thr 185	Tyr	Leu	Glu	Gly	Glu 190	Суз	Leu
Glu	Leu	Leu 195	Arg	Arg	Tyr	Leu	Glu 200	Asn	Gly	Lys	Glu	Thr 205	Leu	Gln	Arg
Ala	Asp 210	Pro	Pro	Lys	Ala	His 215	Val	Ala	His	His	Pro 220	Ile	Ser	Asp	His
Glu 225	Ala	Thr	Leu	Arg	Cys 230	Trp	Ala	Leu	Gly	Phe 235	Tyr	Pro	Ala	Glu	Ile 240
Thr	Leu	Thr	Trp	Gln 245	Arg	Asp	Gly	Glu	Glu 250	Gln	Thr	Gln	Asp	Thr 255	Glu
Leu	Val	Glu	Thr 260	Arg	Pro	Ala	Gly	Asp 265	Gly	Thr	Phe	Arg	Ser 270	Gly	
<210> 1432															
<211> 455															
<212> PRT <213> Homo sapiens															
	)> 14 His	Ala	Ser	Gly 5			Glu		Arg 10	Pro	Arg	Pro	Pro	Arg 15	Leu
Leu	Arg	Arg	Asp 20	Leu	Glu	Arg	Lys	Thr 25	Pro	Ala	Arg	Arg	Pro 30	Ala	Leu
Ala	Ser	Leu 35	Pro	Thr	Gly	His	Thr 40	Ala	Pro	Pro	Pro	Arg 45	Pro	Arg	Cys
Ala	Arg 50	Pro	Val	Arg	Cys	Thr 55	Pro	Ala	Cys	Trp	Arg 60	Leu	Arg	Arg	Arg

65	9	110	OL,	200	70	Dea	****9			75	502	501	,,,,	110	80
Arg	Ala	Leu	Ala	Leu 85	Val	Val	Thr	Leu	Leu 90	His	Leu	Thr	Arg	Leu 95	Ala
Leu	Ser	Thr	Cys 100	Pro	Ala	Ala	Суз	His 105	Суз	Pro	Leu	Glu	Ala 110	Pro	Lys
Сув	Ala	Pro 115	Gly	Val	Gly	Leu	Val 120	Arg	Asp	Gly	Суз	Gly 125	Cys	Cys	Lys
Val	Суз 130	Ala	Lys	Gln	Leu	Asn 135	Glu	Asp	Cys	Ser	Lys 140	Thr	Gln	Pro	Cys
Asp 145	His	Thr	Lys	Gly	Leu 150	Glu	Cys	Asn	Phe	Gly 155	Ala	Ser	Ser	Thr	Ala 160
Leu	Lys	Gly	Ile	Cys 165	Arg	Ala	Gln	Ser	Glu 170	Gly	Arg	Pro	Суз	Glu 175	Tyr
			180				Gly	185					190		
		195					Gly 200					205			
	210					215	Asn				220				
225					230		Cys			235					240
				245			Asp		250	_				255	
			260				Val	265					270		
		275					Ser 280					285			_
	290					295	Asn				300				
305					310		Gln			315					320
Ile	Ser	Thr	Arg	Val 325	Thr	Asn	Asp	Asn	Pro 330	Glu	Cys	Arg	Leu	Val 335	Lys

1510

Glu Thr Arg Ile Cys Glu Val Arg Pro Cys Gly Gln Pro Val Tyr Ser 340 345 350

Ser Leu Lys Lys Gly Lys Lys Cys Ser Lys Thr Lys Lys Ser Pro Glu 355 360 365

Pro Val Arg Phe Thr Tyr Ala Gly Cys Leu Ser Val Lys Lys Tyr Arg 370 375 380

Pro Lys Tyr Cys Gly Ser Cys Val Asp Gly Arg Cys Cys Thr Pro Gln 385 390 395 400

Leu Thr Arg Thr Val Lys Met Arg Phe Arg Cys Glu Asp Gly Glu Thr
405 410 415

Phe Ser Lys Asn Val Met Met Ile Gln Ser Cys Lys Cys Asn Tyr Asn 420 425 430

Cys Pro His Ala Asn Glu Ala Ala Phe Pro Phe Tyr Arg Leu Phe Asn 435 440 445

Asp Ile His Lys Phe Arg Asp 450 455

<210> 1433

<211> 87

<212> PRT

<213> Homo sapiens

<400> 1433

Thr Glu Gly Glu Thr Trp Arg Ser Asp Ser Glu Val Arg Leu Gln Leu 1 5 10 15

Ala His His Leu Arg Pro Gly Pro Asp Glu Pro Pro Val Ala Ser Ala 20 25 30

Gly Ala Ala Ala Ser Arg Gly Ala Cys Gly Pro Ser His Ser Arg
35 40 45

His Cys Leu Pro Ala Gly Leu Glu Pro Ser Glu Arg Pro Asn Pro Arg
50 55 60

Pro Gly Arg Asp Leu Arg Gly Met Thr Ala Glu Pro Pro Lys Gly Gly 65 70 75 80

Glu Phe Glu Gly Arg Gly Pro

<210> 1434 <211> 110 <212> PRT <213> Homo sapiens <400> 1434 Val Trp Arg Ala Gly Ala Gly Met Ala Ser Leu Arg Ser Gln His Gly 5 Pro Gly Ala Pro Glu Ser Leu Arg Lys Val Leu Met Pro Ser Ser Met 25 Gly Leu Leu Ile Leu Tyr Ala Arg Leu Pro Pro Ser Leu Val Gly 40 Gln Ala Gly Arg Trp Ile Gly Trp Ala Gly Arg Ala Gly Gly Gln Ala 55 Val Arg Gln Pro Ser Pro Thr Val Leu Ile Asp Gly Val Glu Cys Ser 70 Asp Val Lys Phe Phe Gln Leu Ala Ala Gln Trp Ser Ser His Val Lys 90 His Phe Pro Ile Cys Ile Phe Gly His Ser Lys Ala Thr Phe 100 105 <210> 1435 <211> 103 <212> PRT <213> Homo sapiens <400> 1435 Gly Ser Gln Asp Ala Arg Arg Gly Ser Gly Leu Gly Val Ser Ser Phe Leu Arg Gly Ser Gly Ser Gly Pro Leu Trp Val Gln His Gly Lys 20 25 Arg Gly Arg Tyr Phe Ser Ser Trp Ala Phe Ile Lys Glu Lys Thr Met 40 Leu Ala Gly Arg Gly Gly Ser Arg Leu Gln Ser Gln His Phe Gly Arg 55

Pro Arg Arg Val Asp His Leu Arg Ser Gly Val Gln Asp Gln Pro Gly

75

1512

Gln His Gly Glu Thr Pro Ser Leu Leu Lys Asn Thr Lys Ile Ser Gln 85 90 95

Val Trp Trp Leu Thr Leu Met 100

<210> 1436

<211> 413

<212> PRT

<213> Homo sapiens

<400> 1436

Asn Glu Cys Thr Gly Pro Glu Phe Arg Val Asp Pro Arg Val Ala Ser 1 5 10 15

Ala Pro Arg Ala Gln Ser Leu Ala Phe Ala Asp Pro Pro Val His 20 25 30

Thr Arg Arg Gln Leu Thr Met Asp Asp Ile Ala Ala Leu Val Val 35 40 45

Asp Asn Gly Ser Gly Met Cys Lys Ala Gly Phe Ala Gly Asp Asp Ala 50 60

Pro Arg Ala Val Phe Pro Ser Ile Val Gly Arg Pro Arg His Gln Gly 65 70 75 80

Val Met Val Gly Met Gly Gln Lys Asp Ser Tyr Val Gly Asp Glu Ala 85 90 95

Gln Ser Lys Arg Gly Ile Leu Thr Leu Lys Tyr Pro Ile Glu His Gly
100 105 110

Ile Val Thr Asn Trp Asp Asp Met Glu Lys Ile Trp His His Thr Phe 115 120 125

Tyr Asn Glu Leu Arg Val Ala Pro Glu Glu His Pro Val Leu Leu Thr 130 135 140

Glu Ala Pro Leu Asn Pro Lys Ala Asn Arg Glu Lys Met Thr Gln Ile 145 150 155 160

Met Phe Glu Thr Phe Asn Thr Pro Ala Met Tyr Val Ala Ile Gln Ala 165 170 175

Val Leu Ser Leu Tyr Ala Ser Gly Arg Thr Thr Gly Ile Val Met Asp 180 185 190

Ser Gly Asp Gly Val Thr His Thr Val Pro Ile Tyr Glu Gly Tyr Ala

1513

195 200 205 Leu Pro His Ala Ile Leu Arg Leu Asp Leu Ala Gly Arg Asp Leu Thr 215 Asp Tyr Leu Met Lys Ile Leu Thr Glu Arg Gly Tyr Ser Phe Thr Thr 225 230 235 Thr Ala Glu Arg Glu Ile Val Arg Asp Ile Lys Glu Lys Leu Cys Tyr 250 Val Ala Leu Asp Phe Glu Gln Glu Met Ala Thr Ala Ala Ser Ser Ser Ser Leu Glu Lys Ser Tyr Glu Leu Pro Asp Gly Gln Val Ile Thr Ile 280 Gly Asn Glu Arg Phe Arg Cys Pro Glu Ala Leu Phe Gln Pro Ser Phe 295 Leu Gly Met Glu Ser Cys Gly Ile His Glu Thr Thr Phe Asn Ser Ile 305 310 315 Met Lys Cys Asp Val Asp Ile Arg Lys Asp Leu Tyr Ala Asn Thr Val 330 Leu Ser Gly Gly Thr Thr Met Tyr Pro Gly Ile Ala Asp Arg Met Gln 345 Lys Glu Ile Thr Ala Leu Ala Pro Ser Thr Met Lys Ile Lys Ile Ile 360 Ala Pro Pro Glu Arg Lys Tyr Ser Val Trp Ile Gly Gly Ser Ile Leu 375 Ala Ser Leu Ser Thr Phe Gln Gln Met Trp Ile Ser Lys Gln Glu Tyr 385 390 395 Asp Glu Ser Gly Pro Ser Ile Val His Arg Lys Cys Phe 405 410

<210> 1437

<211> 97

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (28)

1514

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1437

Val Val Pro Ser Thr Lys Asp Phe Leu Val Gly Val Lys Gly Ser Gly
1 5 10 15

Gly His Arg Gly Gly Glu Met Ala Phe Ser Xaa Ser Gln Ala Pro 20 25 30

Tyr Leu Ser Pro Ala Val Pro Phe Ser Gly Thr Ile Gln Gly Gly Leu 35 40 45

Gln Asp Gly Leu Gln Ile Thr Val Asn Gly Thr Val Leu Ser Ser Ser 50 55 60

Gly Thr Ser Gly Asn Asp Ile Ala Phe His Phe Asn Pro Arg Phe Glu 65 70 75 80

Asp Gly Gly Tyr Val Val Cys Thr Ala Gly Arg Thr Glu Ala Gly Gly 85 90 95

Pro

<210> 1438

<211> 153

<212> PRT

<213> Homo sapiens

<400> 1438

Leu Ala Pro Leu Arg Cys Gln Pro Gly Thr Arg Thr Gln Pro Arg Ser 1 5 10 15

His Pro Ala Ala Asn Asp Pro Ser Ala Ala Met Ser Ala Ala Gly Ala 20 25 30

Arg Gly Leu Arg Ala Thr Tyr His Arg Leu Leu Asp Lys Val Glu Leu 35 40 45

Met Leu Pro Glu Lys Leu Arg Pro Leu Tyr Asn His Pro Ala Gly Pro 50 55 60

Arg Thr Val Phe Phe Trp Ala Pro Ile Met Lys Trp Gly Leu Val Cys 65 70 75 80

Ala Gly Leu Ala Asp Met Ala Arg Pro Ala Glu Lys Leu Ser Thr Ala 85 90 95

Gln Ser Ala Val Leu Met Ala Thr Gly Phe Ile Trp Ser Arg Tyr Ser

1515

105 100 110 Leu Val Ile Ile Pro Lys Asn Trp Ser Leu Phe Ala Val Asn Phe Phe 120 Val Gly Ala Ala Gly Ala Ser Gln Leu Phe Arg Ile Trp Arg Tyr Asn 130 135 Gln Glu Leu Lys Ala Lys Ala His Lys 145 150 <210> 1439 <211> 343 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (244) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (305) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (325) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (328) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (340) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1439 Trp Ile Gln Arg Ile Arg Ala Arg Gly Lys Thr Asn Leu Arg Arg Thr 5 10 Thr Tyr Leu Val Leu Asp Glu Ala Asp Arg Met Leu Asp Met Gly Phe Glu Pro Gln Ile Arg Lys Ile Val Asp Gln Ile Arg Pro Asp Arg Gln

		35					40					45			
Thr	Leu 50	Met	Trp	Ser	Ala	Thr 55	Trp	Pro	Lys	Glu	Val 60	Arg	Gln	Leu	Ala
Glu 65	Asp	Phe	Leu	Lys	Asp 70	Tyr	Ile	His	Ile	Asn 75	Ile	Gly	Ala	Leu	Glu 80
Leu	Ser	Ala	Asn	His 85	Asn	Ile	Leu	Gln	Ile 90	Val	Asp	Val	Суз	His 95	Asp
Val	Glu	Lys	Asp 100	Glu	Lys	Leu	Ile	Arg 105	Leu	Met	Glu	Glu	Ile 110	Met	Ser
Glu	Lys	Glu 115	Asn	Lys	Thr	Ile	Val 120	Phe	Val	Glu	Thr	Lys 125	Arg	Arg	Суз
Asp	Glu 130	Leu	Thr	Arg	Lys	Met 135	Arg	Arg	Asp	Gly	Trp 140	Pro	Ala	Met	Gly
Ile 145	His	Gly	Asp	Lys	Ser 150	Gln	Gln	Glu	Arg	Asp 155	Trp	Val	Leu	Asn	Glu 160
Phe	Lys	His	Gly	Lys 165	Ala	Pro	Ile	Leu	11e 170	Ala	Thr	Asp	Val	Ala 175	Ser
Arg	Gly	Leu	Asp 180	Val	Glu	Asp	Val	Lys 185	Phe	Val	Ile	Asn	Tyr 190	Asp	Tyr
Pro	Asn	Ser 195	Ser	Glu	Asp	Tyr	Ile 200	His	Arg	Ile	Gly	Arg 205	Thr	Ala	Arg
Ser	Thr 210	Lys	Thr	Gly	Thr	Ala 215	Tyr	Thr	Phe	Phe	Thr 220	Pro	Asn	Asn	Ile
Lys 225	Gln	Val	Ser	Asp	Leu 230	Ile	Ser	Val	Leu	Arg 235	Glu	Ala	Asn	Gln	Ala 240
Ile	Asn	Pro	Xaa	Leu 245	Leu	Gln	Leu	Val	Glu 250	Asp	Arg	Gly	Ser	Gly 255	Arg
Ser	Arg	Gly	Arg 260	Gly	Gly	Met	Lys	Asp 265	Asp	Arg	Arg	Asp	Arg 270	Tyr	Ser
		275					280					285		Asn	
Asp	Arg 290	Gly	Tyr	Ser	Ser	Leu 295	Leu	Lys	Arg	Asp	Phe 300	Gly	Ala	Lys	Thr
Xaa	Asn	Gly	Gly	Tyr	Ser	Ala	Cvs	Lvs	Phe	Thr	Asn	Glv	Ser	Phe	Glv

1517

305 310 315 320

Ser Asn Phe Gly Xaa Cys Trp Xaa Ser Gly Pro Val Leu Gly Leu Gly 325 330 335

Ile Pro Thr Xaa Ala Leu Pro 340

<210> 1440

<211> 122

<212> PRT

<213> Homo sapiens

<400> 1440

Ile Cys Val Ser Ala Arg Arg Ala Leu Ser Gly Leu Glu His Gly Leu 1 5 10 15

Gly Trp Glu Arg Val Trp Glu Lys Met Gly Asn Lys Glu Pro Gly Ser 20 25 30

His Gly His Arg Ser Asp Ala Asp Pro Ser Arg Phe Ser Pro Val Leu  $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$ 

Pro Pro Ala Val Gln Leu Gly Val Trp Arg Glu Glu Gly Arg Gly Gly 50 55 60

Ser Cys Pro Phe Ser Trp Gly Arg Gly Pro Val Ser Ser Thr Trp Leu
65 70 75 80

Phe Pro Lys Gly Ser Lys Arg Glu Gly Leu Gly Glu Lys Thr Met Glu 85 90 95

Arg Gly Pro Ala Lys Glu Asn Arg Glu Glu Val Ser Gly Leu Ile Ser 100 105 110

Leu Leu Ser Arg Cys Ser Gly Ser Leu Ile 115 120

<210> 1441

<211> 74

<212> PRT

.<213> Homo sapiens

<400> 1441

Gly His Arg His Thr Pro Pro His Leu Ala Asn Phe Tyr Tyr Phe Phe 1 5 10 Cys Arg Asp Glu Val Ser Leu Cys Pro Gly Trp Ser Gln Thr Pro Val 20 25 30

Leu Lys Gln Ser Ser His Leu Gly Ser Leu Ser Ala Gly Ile Ile Gly 35 40 45

Met Ser His Arg Ala Arg Pro His Val Cys Met Leu Lys Val Leu Arg 50 60

Ile Pro Met Glu Asn Lys Phe Asp Phe Ala 65 70

<210> 1442

<211> 103

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1442

Ala Xaa Xaa His Gln Pro Ser Leu Lys Gly Thr Lys Ala Gly Ala Pro 1 5 10 15

Pro Arg Cys Gly Arg Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu 20 25 30

Phe Gly Thr Arg Glu Ala Glu Ala Gly Val Gln Trp Cys Asp Leu Gly 35 40

Ser Leu Gln Pro Leu Pro Pro Arg Phe Gln Gln Phe Ser Cys Leu Ser 50 60

Leu Pro Ser Gly Trp Asp Asp Arg Arg Leu Pro Ser Cys Leu Thr Ser 65 70 75 80

Phe Cys Ile Phe Ser Arg Asp Gly Val Ser Pro Cys Trp Pro Gly Trp 85 90 95

Ser Gln Thr Pro Asp Leu Arg 100

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<210> 1443
<211> 106
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (102)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1443
Leu His Ala Ala Ala Cys Ala Ala Met Ser Leu Val Ile Pro Glu
Lys Phe Gln His Ile Leu Arg Val Leu Asn Thr Asn Ile Asp Gly Arg
             20
Arg Lys Ile Ala Phe Ala Ile Thr Ala Ile Lys Gly Val Gly Arg Xaa
                            40
Tyr Ala His Val Xaa Leu Arg Lys Xaa Xaa Ile Asp Leu Thr Xaa Arg
                         55
Ala Xaa Glu Leu Thr Xaa Asp Xaa Val Glu Arg Val Ile Thr Ile Met
Gln Asn Xaa Arg Gln Tyr Lys Ile Pro Asp Trp Phe Leu Asn Arg Gln
Asn Asp Xaa Xaa Asp Xaa Ser Thr Ser Ser
            100
<210> 1444
<211> 14
<212> PRT
<213> Homo sapiens
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Pro Val Trp Pro Lys Trp Ser Gly Trp Pro Leu Ala Leu Pro

10

5

<400> 1444

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<210> 1445
<211> 126
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1445
Phe Leu Arg Leu Val Leu Gly Leu Leu Ile Gly Arg Cys Leu Gln Glu
Met Leu Lys Leu Gly Thr Leu Pro Pro Thr Ser Lys Pro Gln Leu Leu
             20
                                 25
                                                     30
Cys Gln Met Val Ser Leu Lys Ile Ser Ala Cys Leu Thr Thr Lys Gly
                             40
Lys Tyr Val Val Phe Phe Phe Tyr Pro Leu Asp Phe Thr Phe Val Cys
                         55
                                             60
Pro Thr Glu Ile Ile Ala Phe Ser Asp Arg Ala Glu Glu Phe Lys Lys
Leu Asn Cys Gln Val Ile Gly Ala Ser Val Asp Ser His Phe Cys His
Leu Ala Trp Val Asn Thr Pro Xaa Lys Gln Gly Gly Leu Gly Pro Met
            100
                                105
Asn Ile Pro Leu Val Ser Xaa Pro Thr His Xaa Xaa Ser Gly
        115
                            120
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<210> 1446
<211> 97
<212> PRT
<213> Homo sapiens
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<222> (92)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1446
Cys Asp Lys Glu Lys Asn Leu Leu His Val Thr Asp Thr Gly Val Gly
                                     10
Met Thr Arg Glu Glu Leu Val Lys Asn Leu Gly Thr Ile Ala Lys Ser
Gly Thr Ser Glu Phe Leu Asn Lys Met Thr Glu Ala Gln Glu Asp Gly
                        40
Gln Ser Thr Ser Asp Leu Ile Gly Gln Phe Gly Val Gly Phe Tyr Ser
                         55
Ala Phe Leu Val Ala Asp Lys Val Ile Val Thr Ser Lys His Asn Asn
                    70
                                       75
Asp Thr Gln His Ile Trp Glu Ser Asp Ser Asn Xaa Phe Ser Val Asn
Cys
<210> 1447
<211> 47
<212> PRT
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<221> SITE <222> (41)

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<210> 1448
<211> 106
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1448
Val Phe Arg Val Glu Ala Trp Arg Thr Ser Gly Glu Thr Pro Ala Ile
Ser Pro Ser Lys Arg Ala Arg Pro Ala Glu Val Gly Gly Met Gln Leu
             20
                                 25
Arg Phe Ala Arg Leu Ser Glu His Ala Thr Ala Pro Thr Arg Gly Ser
Ala Arg Ala Ala Gly Tyr Asp Leu Tyr Ser Ala Tyr Asp Tyr Thr Ile
                         55
Pro Pro Met Glu Lys Ala Val Val Lys Thr Asp Ile Gln Ile Ala Leu
 65
                    70
                                         75
Pro Ser Gly Cys Xaa Gly Arg Val Ala Pro Arg Ser Gly Leu Ala Ala
Lys His Phe Ile Asp Val Gly Xaa Val Ser
            100
                                105
<210> 1449
<211> 60
<212> PRT
<213> Homo sapiens
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<221> SITE <222> (44) <223> Xaa equals any of the naturally occurring L-amino acids Thr Met Ala Val Gly Lys Asn Lys Arg Leu Thr Lys Gly Gly Lys Lys Gly Ala Lys Lys Lys Val Val Asp Pro Phe Phe Lys Lys Asp Trp Tyr 25 Asp Val Lys Ala Pro Ala Met Phe Xaa Ile Arg Xaa Ile Gly Lys Thr 40 Leu Val Thr Arg Thr Gln Gly Thr Lys Ile Ala Ser <210> 1450 <211> 45 <212> PRT <213> Homo sapiens <400> 1450 Asn Phe Gly Ser Leu Leu Gly Ala Cys Leu Ile Leu Gln Ile Thr Thr Gly Leu Phe Leu Ala Met His Tyr Ser Pro Asp Ala Ser Thr Ala Phe Ser Ser Ile Ala His Ile Thr Arg Asp Val Asn Tyr Gly 35 40 <210> 1451 <211> 34

<212> PRT

<213> Homo sapiens

<400> 1451

Lys Leu Leu Asp Asp Asn Gly Asn Ile Ala Glu Glu Leu Ser Ile Leu

Lys Trp Asn Thr Asp Ser Val Glu Glu Phe Leu Ser Glu Lys Leu Glu 25

Arg Ile

```
<210> 1452
<211> 61
<212> PRT
<213> Homo sapiens
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<222> (6)
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<400> 1452
Pro Arg Val Arg Leu Xaa Asp Glu Thr Asn Ile Cys Asn Gly Lys Pro
Val Asp Gly Leu Thr Thr Leu Arg Asn Gly Thr Leu Val Ala Phe Arg
             20
Gly His Tyr Phe Trp Met Leu Ser Pro Phe Ser Pro Pro Ser Pro Ala
                            40
Arg Arg Ile Thr Glu Val Leu Gly Asn Pro Phe Pro His
                     55
<210> 1453
<211> 44
<212> PRT
<213> Homo sapiens
Arg Glu Gln Lys Leu Glu Leu His Arg Gly Ala Ala Ala Leu Glu Leu
Val Asp Pro Pro Gly Cys Arg Asn Ser Ala Arg Gly Cys Ser Glu Pro
Arg Ser His His Cys Thr Pro Val Trp Ala Thr Glu
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<210> 1454

<211> 118

<212> PRT

<213> Homo sapiens

35 . 40

<220>

<221> SITE

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Ala Lys Gly Thr Lys Ser

1526

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<222> (76) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (84) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (98) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (99) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (106) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (111) <223> Xaa equals any of the naturally occurring L-amino acids Thr Arg Val Ala Pro Ser Val Leu Arg Leu Ala Met Thr Ser Tyr Ser 15 10 Tyr Arg Gln Ser Ser Ala Thr Ser Ser Phe Gly Gly Leu Gly Gly Ser Val Arg Ile Gly Pro Gly Val Ala Phe Arg Ala Pro Ser Ile His 40 45 Gly Gly Ser Gly Gly Arg Gly Val Ser Val Ser Ser Ala Arg Phe Val Ser Ser Ser Ser Gly Gly Tyr Gly Gly Kaa Gly Gly Val Leu Thr Ala Ser Xaa Gly Leu Leu Ala Gly Asn Glu Lys Leu Thr Met Gln 85 90 Asn Xaa Xaa Thr Ala Trp Leu Leu Leu Xaa Lys Phe Ala Pro Xaa Gly 105

1527

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<210> 1455
<211> 48
<212> PRT
<213> Homo sapiens
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<222> (2)
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<221> SITE
<222> (34)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (43)
<223> Xaa equals any of the naturally occurring L-amino acids
Ala Xaa Glu Asn Ser Arg Ile Val Leu Gln Ile Asp Asn Ala Arg Leu
                                      10
Ala Ala Asp Asp Phe Arg Thr Lys Phe Glu Thr Glu Gln Ala Leu Arg
                                 25
Met Xaa Val Glu Ala Asp Ile Asn Gly Leu Xaa Arg Cys Trp Met Ser
         35
                             40
```

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<210> 1456
<211> 143
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
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<222> (137) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1456 Gly Asp Tyr Ser His Tyr Tyr Thr Thr Ile Gln Asp Leu Arg Asp Lys Ile Leu Gly Ala Thr Ile Glu Asn Ser Arg Ile Val Leu Gln Ile Asp Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg Thr Lys Phe Glu Thr Glu Gln Ala Leu Arg Met Ser Val Glu Ala Asp Ile Asn Gly Leu Arg Arg 55 Val Leu Asp Glu Leu Thr Leu Ala Arg Thr Asp Leu Glu Met Gln Ile 70 Glu Gly Leu Lys Glu Glu Leu Ala Tyr Leu Lys Lys Asn His Glu Glu Glu Ile Ser Thr Leu Arg Gly Gln Val Gly Gln Val Ser Val Glu 100 Val Asp Ser Ala Pro Gly Thr Asp Leu Ala Lys Ile Leu Ser Asp Met Arg Ser Xaa Tyr Glu Val Met Ala Xaa Gln Asn Arg Lys Asp Ala 135 140 <210> 1457 <211> 116 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (21) <223> Xaa equals any of the naturally occurring L-amino acids

Ser Gly Ser Ala Xaa Pro Thr Leu Ala Arg Ala Met Ala Ser Val Ser 20 25 30

Gly Cys Val Gly Val Arg Pro Ser Leu His Pro Ala Thr Ser Thr Ala

5

Glu Leu Ala Cys Ile Tyr Ser Ala Leu Ile Leu His Asp Asp Glu Val

1529

35 40 45 Thr Val Thr Glu Asp Lys Ile Asn Ala Leu Ile Lys Ala Ala Gly Val 55 Asn Val Glu Pro Phe Trp Pro Gly Leu Phe Ala Lys Ala Leu Ala Asn 70 75 Val Asn Ile Gly Ser Leu Ile Cys Asn Val Gly Ala Gly Gly Pro Ala Pro Ala Ala Gly Ala Ala Thr Ser Arg Arg Ser Cys Pro Leu His Cys Cys Cys Ser Ser 115 <210> 1458 <211> 115 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (47) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1458 Leu Val Pro Asn Ser Ala Arg Ala Ala Ala Ser Ala Ala Asp Ala Ala Ala Met Arg Tyr Val Ala Ser Tyr Leu Leu Ala Ala Leu Gly Gly Asn 20 Ser Ser Pro Ser Ala Lys Gly Ile Lys Lys Ile Leu Asp Asn Xaa Gly 40 Ile Glu Ala Asp Asp Asp Arg Leu Asn Lys Val Ile Ser Glu Leu Asn 55 Gly Lys Asn Ile Glu Asp Val Ile Ala Gln Gly Ile Gly Lys Leu Ala 65 70 Ser Val Pro Ala Gly Gly Ala Val Ala Val Ser Ala Ala Pro Gly Ser

Ala Ala Pro Ala Ala Gly Ser Ala Pro Ala Ala Ala Glu Glu Lys Lys

Asp Glu Lys

115 <210> 1459 <211> 132 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (115) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (123) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (126) <223> Xaa equals any of the naturally occurring L-amino acids . <220> <221> SITE <222> (129) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1459 Ala Ser Asp Ala Leu His Ser Leu Ser Ala Pro Val Leu Arg Leu Ser 10 Ser Arg Ser Ala Ala Arg Pro Ala Thr Met Thr Glu Gln Ala Ile Ser Phe Ala Lys Asp Phe Leu Ala Gly Gly Ile Ala Ala Ile Ser Lys 35 40 45 Thr Ala Val Ala Pro Ile Glu Arg Val Lys Leu Leu Gln Val Gln 50 55 His Ala Ser Lys Gln Ile Ala Ala Asp Lys Gln Tyr Lys Gly Ile Val 70 Asp Cys Ile Val Arg Ile Pro Lys Glu Gln Gly Val Leu Ser Phe Trp 85 Arg Gly Asn Leu Ala Asn Val Ile Arg Tyr Phe Pro Thr Gln Ala Leu 100 105 110

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```
Asn Phe Xaa Phe Lys Asp Lys Tyr Lys Gln Xaa Phe Leu Xaa Gly Val
        115
Xaa Lys His Thr
    130
<210> 1460
<211> 124
<212> PRT
<213> Homo sapiens
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<222> (117) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (119) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (120) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (121) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1460 Xaa Ser Xaa Lys Thr Gly Phe Xaa Asp Trp Ile Ser Val Ala Tyr Tyr Gly Cys Phe Arg Glu Gly Ala Thr Ile Ile Gln Val Gly Lys Leu Ile 20 25 30 Lys Glu Ala Ala Gly Lys Ser Asn Leu Lys Arg Val Thr Leu Glu Leu 40 Gly Gly Lys Ser Pro Cys Ile Val Leu Ala Asp Ala Asp Leu Asp Asn 55 Ala Val Glu Phe Ala His His Gly Val Phe Tyr His Gln Gly Gln Xaa 70 Cys Ile Ala Ala Xaa Arg Ile Phe Val Glu Glu Ser Ile Tyr Asp Glu Phe Val Arg Arg Ser Val Glu Arg Val Lys Xaa Ile Ser Leu Gly Xaa 100 105 Pro Leu Thr Pro Xaa Val Xaa Xaa Xaa Pro Ser Asp 115 120

<210> 1461

<211> 179

<212> PRT

<213> Homo sapiens

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<222> (176)
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<400> 1461
Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Val Val Pro Leu Ala
Gly Thr Asn Gly Glu Thr Thr Gln Gly Leu Asp Gly Leu Ser Glu
             20
                                 25
```

1534

Arg Cys Ala Gln Tyr Lys Lys Asp Gly Ala Asp Phe Ala Lys Trp Arg Cys Val Leu Lys Ile Gly Glu His Thr Pro Ser Ala Leu Ala Ile Met 55 Glu Asn Ala Asn Val Leu Ala Arg Tyr Ala Ser Ile Cys Gln Gln Asn Gly Ile Val Pro Ile Val Glu Pro Glu Ile Leu Pro Asp Gly Asp His Asp Leu Lys Arg Leu Xaa Val Cys Asp Arg Lys Gly Ala Trp Leu Ala 100 105 Ala Thr Arg Leu Leu Ser Asp His His Ile Tyr Leu Xaa Gly Thr Leu 120 Leu Lys Pro Asn Met Val Pro Gln Ala Met Leu Ala Leu Xaa Ser Phe 130 140 135 Xaa Met Lys Glu Ile Ala His Gly Glu Pro Val Ser Xaa Ala Val Pro Ala Gln Xaa Pro Pro Arg Leu Ser Leu Gly Ile Asn Xaa Xaa Cys Xaa 170 Gly Arg Pro

<210> 1462

<211> 31

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1462

Ala Asn Ser Leu Ala Cys Gln Gly Lys Tyr Thr Pro Xaa Gly Gln Ala 1 5 10

Gly Ala Ala Ala Ser Glu Ser Leu Phe Val Ser Asn His Ala Tyr  $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

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<210> 1463
<211> 71
<212> PRT
<213> Homo sapiens
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<222> (65)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (69)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1463
Asp Asp Cys Glu Phe Lys Ala Glu Gly Asn Ser Lys Phe Thr Tyr Thr
                                     10
                                                          15
Val Leu Glu Asp Gly Cys Thr Lys His Thr Gly Glu Trp Ser Lys Thr
                                  25
Val Phe Glu Tyr Arg Thr Arg Lys Ala Val Arg Leu Pro Ile Val Asp
                             40
Ile Ala Pro Tyr Asp Ile Gly Gly Pro Asp Gln Glu Phe Gly Val Asp
Xaa Gly Pro Val Xaa Phe Leu
<210> 1464
<211> 77
<212> PRT
<213> Homo sapiens
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<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (10)
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<223> Xaa equals any of the naturally occurring L-amino acids
 <400> 1464
 Xaa Gly Thr Arg His Xaa Leu Arg Thr Xaa Asn Gln Ser Ser Asp Glu
                                      10
 Leu Gln Leu Ser Met Gly Asn Ala Met Phe Val Lys Glu Gln Leu Ser
                                  25
Leu Leu Asp Arg Phe Thr Glu Asp Ala Lys Arg Leu Tyr Gly Ser Glu
 Ala Phe Ala Thr Asp Phe Gln Asp Ser Ala Ala Ala Lys Lys Leu Ile
Asn Asp Tyr Val Lys Asn Gly Thr Arg Gly Thr Ile Thr
                      70
<210> 1465
<211> 105
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (83)
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<220>
<221> SITE
<222> (98)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (103)
<223> Xaa equals any of the naturally occurring L-amino acids
·<220>
<221> SITE
<222> (104)
<223> Xaa equals any of the naturally occurring L-amino acids
Leu Lys Gly Arg Pro Gly Phe Pro Gly Ser Lys Gly Glu Ala Gly Phe
Phe Gly Ile Pro Gly Leu Lys Gly Leu Ala Gly Glu Pro Gly Phe Lys
```

Gly Ser Arg Gly Asp Pro Gly Pro Pro Gly Pro Pro Pro Val Ile Leu Pro Gly Met Lys Asp Ile Lys Gly Glu Lys Gly Asp Glu Gly Pro Met Gly Leu Lys Gly Tyr Leu Gly Ala Lys Gly Ile Gln Gly Met Pro Gly Ile Pro Xaa Leu Ser Gly Ile Pro Gly Leu Pro Gly Arg Pro Gly His Ile Xaa Gly Ile Lys Gly Xaa Xaa Gly 100 <210> 1466 <211> 36 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (19) <223> Xaa equals any of the naturally occurring L-amino acids Arg Pro Gly Leu Cys Ala Lys Thr Val Phe Lys Ala Leu Gln Ala Pro Ala Leu Xaa Glu Glu His Gly Glu Gly Trp Arg Leu His Pro Trp Gly Val Trp Glu Thr 35 <210> 1467 <211> 82 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (76) <223> Xaa equals any of the naturally occurring L-amino acids

<220>

1538

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<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (80)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (82)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1467
Arg Val Pro Ala Met Ala Ala Lys Gly Gly Thr Val Lys Ala Ala Ser
Ala Phe Asn Ala Thr Glu Asp Ala Gln Thr Leu Arg Lys Ala Met Lys
Gly Leu Gly Thr Asp Glu Asp Ala Ile Ile Ser Val Leu Ala Tyr Arg
Asn Thr Ala Gln Arg Gln Glu Ile Arg Thr Ala Leu Gln Glu His His
     50
Ser Ala Gly Asp Leu Val Leu Arg Asn Gly Pro Xaa Phe Val Xaa Xaa
                     70
Trp Xaa
<210> 1468
<211> 83
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
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<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1539

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<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (82)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (83)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1468
Gly Trp His Leu Gly Pro Pro Gly Ser Trp Cys Trp Trp Ser Xaa Cys
                                     10
Ile Thr Gly Pro Asn Thr Ser Xaa Cys Cys Trp Thr His Phe Glu Lys
             20
                                 25
Pro Arg Xaa Ile Asp Asn Val Leu Val Ile Phe Ser His Asp Phe Trp
Ser Thr Glu Ile Asn Gln Leu Ile Ala Gly Val Asn Xaa Cys Pro Val
     50
                         55
Leu Xaa Val Phe Phe Pro Phe Ser Ile Gln Leu Phe Pro Asn Xaa Phe
65
                     70
                                         75
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<210> 1469

Pro Xaa Xaa

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<211> 26
<212> PRT
<213> Homo sapiens
<400> 1469
Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser Gln
                  5
                                      10
Pro Lys Ile Val Lys Trp Asp Arg Asp Met
<210> 1470
<211> 168
<212> PRT
<213> Homo sapiens
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<221> SITE
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<222> (141)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (143)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (146)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (148)
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1541

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Asn Leu Ile Arg Val Met Val Thr 165

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<210> 1471
<211> 131
<212> PRT
<213> Homo sapiens
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<222> (22)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (88)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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                                     10
Gly Lys Thr Leu Ala Xaa Pro Asn Leu Ile Ala Leu Gln His Ile Pro
Leu Ser Pro Ala Gly Ser Asn Ser Glu Glu Ala Arg Thr Asp Arg Pro
         35
                             40
Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Asp Ala Pro Cys Ser
Gly Ala Leu Ser Ala Ala Gly Val Val Val Thr Arg Ser Val Thr Ala
                     70
                                         75
Thr Leu Ala Ser Ala Leu Ala Xaa Ala Pro Phe Ala Phe Phe Pro Ser
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Phe Leu Ala Thr Phe Ala Gly Phe Pro Arg Gln Ala Leu Asn Xaa Gly
            100
Leu Pro Leu Xaa Phe Arg Xaa Ser Ala Val Arg His Leu Asp Pro Lys
                             120
Lys Leu Asp
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<210> 1472
<211> 179
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<213> Homo sapiens
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1544

PCT/US00/05882

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Lys Lys Lys Gly Gly Arg Xaa Kaa Gly Ser Lys Leu Thr Tyr Ala
Cys Met Xaa Arg His Ser Ser Xaa Ile Gly Ser Pro Lys Phe Asn Ser
Leu Ala Xaa Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr
    50
                       55
                                          60
Gln Leu Asn Arg Leu Ala Xaa His Pro Xaa Phe Ala Ser Trp Arg Asn
65
                   70
Ser Xaa Lys Ala Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg Ser Leu
                                  90
Asn Gly Lys Trp Asp Xaa Pro Cys Xaa Gly Ala Leu Xaa Xaa Ala Gly
           100
                             105
```

1546

Val Xaa Val Thr Xaa Xaa Xaa Thr Ala Thr Leu Ala Xaa Ala Leu Ala 115 120 125

Pro Ala Pro Phe Ala Phe Phe Pro Ser Phe Xaa Ala Thr Phe Ala Gly
130 135 140

Phe Pro Arg Gln Ala Xaa Asn Arg Gly Leu Pro Leu Gly Phe Arg Leu 145 150 155 160

Xaa Ala Leu Arg Asp Leu Xaa Pro Gln Lys Asn Leu Ile Arg Gly Asp 165 170 175

Gly Ser Xaa

<210> 1473

<211> 58

<212> PRT

<213> Homo sapiens

<400> 1473

Ile Ala Ser Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met
1 5 10 15

Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala 20 25 30

Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu 35 40 45

Asn Arg Leu Ala Ala His Pro Pro Phe Ala

<210> 1474

<211> 70

<212> PRT

<213> Homo sapiens

<400> 1474

Ile Ala Ser Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met
1 5 10 15

Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala

Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu 35 40

1547

Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp Arg Asn Ser Glu

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55
Glu Ala Arg Thr Asp Arg
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Leu Pro Xaa Ala Xaa Tyr Thr Xaa Xaa Gly Thr Thr Pro His Tyr Arg
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1548

1 5 15 10 Glu Ser Trp Tyr Ala Cys Arg Tyr Arg Ser Gly Ile Pro Gly Ser Thr 20 25 His Ala Ser Glu Lys Lys Lys Lys Lys Lys Lys Lys Lys Arg Xaa 40 Asp Asp Leu Glu Asp Pro Lys Leu Thr Tyr Xaa Xaa Met Gln 55 <210> 1476 <211> 80 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (3) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (4) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (5) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (8) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (29) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (40) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (44)

1549

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<210> 1477

<211> 52

<212> PRT

<213> Homo sapiens

<400> 1477

Arg Gln Val Pro His Glu Arg Ala Val Arg Asp Gly Arg Gly Gly 1 5 10 15

Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met Arg Arg His Ser 20 25 30

Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala Val Val Leu Gln 35 40 45

Arg Arg Asp Trp

1550

<210> 1478

<211> 154

<212> PRT

<213> Homo sapiens

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<222> (140)

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<400> 1478

Ile Ala Ser Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met
1 5 10 15

Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala 20 25 30

Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu
35 40 45

Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp Arg Asn Ser Glu 50 60

Glu Ala Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg Ser Leu Asn Gly
65 70 75 80

Glu Trp Asp Ala Pro Cys Ser Gly Ala Leu Ser Ala Ala Gly Val Val
85 90 95

Val Thr Arg Ser Val Thr Ala Thr Leu Ala Ser Ala Leu Ala Pro Ala 100 105 110

Pro Phe Ala Phe Pro Ser Phe Leu Ala Thr Phe Ala Gly Phe Pro 115 120 125

Arg Gln Ala Leu Asn Arg Gly Leu Pro Leu Gly Xaa Arg Phe Lys Cys 130 135 140

Phe Thr Asp Leu Asp Pro Lys Lys Leu Asp 145 150

<210> 1479

<211> 130

<212> PRT

<213> Homo sapiens

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<221> SITE <222> (122) <223> Xaa equals any of the naturally occurring L-amino acids Ile Ala Gly Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met 10 Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu 40 Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp Arg Asn Ser Glu Glu Ala Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg Ser Leu Asn Gly 70 75 Glu Trp Asp Ala Pro Cys Ser Gly Ala Leu Ser Ala Ala Gly Val Val 85 90 Val Thr Arg Ser Val Thr Ala Thr Leu Ala Lys Arg Pro Lys Arg Pro 100 105 Phe Leu Ser Leu Ser Ser Phe Leu Phe Xaa Pro Arg Ser Ala Gly Phe 120 Ser Pro 130 <210> 1480 <211> 131 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (103) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (112) <223> Xaa equals any of the naturally occurring L-amino acids

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<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1481

Xaa Ser Ser Arg Ser Arg Ala Ala Arg Ser Arg Gly Ser Lys Leu Thr
1 10 15

Tyr Ala Cys Met Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe 20 25 30

Asn Ser Leu Ala Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly 35 40

Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp 50 55 60

His Asn Ser Glu Glu Ala Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg 65 70 75 80

Ser Leu Asn Gly Glu Trp Asp Xaa Pro Cys Ser Gly Ala Leu Ser Ala 85 90 95

Ala Gly Val Val Val Thr Arg Ser Val Thr Ala Thr Leu Ala Ala Pro 100 105 110

<210> 1482

<211> 53

<212> PRT

<213> Homo sapiens

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<400> 1482

Glu Asn Val Lys Ala Lys Ile Gln Asp Lys Glu Gly Ile Pro Pro Glu

<220> <221> SITE <222> (6) 1554

1 10 15 Xaa Ser Arg Glu Leu Asn Leu Cys Leu Xaa Lys Gln Leu Gly Arg Met 25 Gly Arg Tyr Phe Val Leu Asn Leu Gln Tyr Phe Lys Arg Gly Ser Tyr 35 40 Phe Xaa Ile Leu Cys 50 <210> 1483 <211> 61 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (56) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (59) <223> Xaa equals any of the naturally occurring L-amino acids Ala Asn Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu Val Glu Pro Ser Asp Thr Ile Glu Asn Val Lys Ala Lys Ile Gln Asp Lys Glu Gly Ile Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala 35 40 Gly Lys Gln Leu Glu Gly Trp Xaa Gln Leu Xaa Gln Thr 50 55 <210> 1484 <211> 27 <212> PRT <213> Homo sapiens

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Gly Glu Gly Pro Thr Xaa Pro Leu Pro Ser Glu Thr Xaa Gly Asp Val
Ala Pro Leu Xaa Cys Xaa Xaa Gly Leu Asn Met
             20
<210> 1485
<211> 45
<212> PRT
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<212> PRT

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<210> 1487
<211> 36
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<213> Homo sapiens
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Xaa Leu Gly Arg Asn Trp Ala Xaa Phe Thr Gly Lys Xaa Val Gly Xaa
                  5
                                                          15
Ala Ser Xaa Asn Val Tyr Val His Ile Pro His Leu Arg Asn Ser His
                                 25
Glu Lys Xaa Ser
         35
<210> 1488
<211> 34
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<213> Homo sapiens
<400> 1488
Ser Gly Pro Leu Trp Ile Leu Gly Asp Val Phe Ile Gly Arg Tyr Tyr
                                      10
Thr Val Phe Asp Arg Asp Asn Asn Arg Val Gly Phe Ala Glu Ala Ala
                                  25
Arg Leu
<210> 1489
<211> 160
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Pro Thr Asn Xaa Xaa Lys Ser Xaa Glu Leu His Arg Gly Gly Gly Arg
                                      10
Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Thr
                                 25
Gln Arg Pro Val Asp Ile Val Phe Leu Leu Asp Gly Ser Glu Arg Leu
         35
Gly Glu Gln Asn Phe His Lys Ala Arg Arg Phe Val Glu Gln Val Ala
     50
                         55
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<210> 1490
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Ala Gln Met Gly Met Leu Lys Gly Pro Leu Leu Asn Lys Phe Leu Thr
                                     10
                                                         15
Thr Ala Lys Asp Lys Asn Arg Trp Glu Asp Xaa Gly Lys Gln Leu Tyr
Asn Val Glu Ala Thr Ser Tyr Xaa Leu Xaa Ala Leu Leu Gln Leu Lys
                             40
Xaa Phe Asp Phe Val Pro Pro Val Val Xaa Xaa Leu Asn Xaa Gln Arg
     50
                         55
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Xaa Tyr Gly Gly Gly Tyr Gly Ser Thr Gln Ala Thr Phe Met Val Phe 65 70 75 80

Gln Xaa Leu Ala Gln Xaa Gln Lys Asp Gly Pro Asp His Gln Ala Leu 85 90 95

Asn Leu Xaa Val Xaa Leu Gln Met Leu 100 105

<210> 1491

<211> 125

<212> PRT

<213> Homo sapiens

<400> 1491

Arg Asn Thr Leu Ile Ile Tyr Leu Asp Lys Val Ser His Ser Glu Asp 1 5 10 15

Asp Cys Leu Ala Phe Lys Val His Gln Tyr Phe Asn Val Glu Leu Ile 20 25 30

Gln Pro Gly Ala Val Lys Val Tyr Ala Tyr Tyr Asn Leu Glu Glu Ser 35 40 45

Cys Thr Arg Phe Tyr His Pro Glu Lys Glu Asp Gly Lys Leu Asn Lys 50 55 60

Leu Cys Arg Asp Glu Leu Cys Arg Cys Ala Glu Glu Asn Cys Phe Ile 65 70 75 80

Gln Lys Ser Asp Asp Lys Val Thr Leu Glu Glu Arg Leu Asp Lys Ala 85 90 95

Cys Glu Pro Gly Val Asp Tyr Val Tyr Lys Thr Arg Leu Ala Arg Phe 100 105 110

Lys Leu Ser Asn Asp Phe Asp Arg Val His His Gly His 115 120 125

<210> 1492

<211> 68

<212> PRT

<213> Homo sapiens

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<222> (62)

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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1492
Arg Pro Thr Arg Pro Ala Leu Ser Ile Ile Ala Leu Glu Ile Gln Ala
                  5
 1
                                     10
Gln Lys Cys Val Glu Leu Thr Glu Gly Ile Glu Cys Leu Gln Thr His
                                 25
Ser Lys Ile Asn Gly Arg Asp Leu Thr Phe Trp Gln Glu Leu Val Ser
Lys Cys Leu Thr Glu Tyr Ser Ser Lys Gln Ser Gly Ser Xaa Pro Asn
     50
                         55
Val Pro Glu Val
 65
<210> 1493
<211> 74
<212> PRT
<213> Homo sapiens
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<400> 1493
Glu Glu Ile Gln Lys His Asn His Ser Lys Ser Thr Trp Xaa Asp Pro
                                     10
Xaa Thr Thr Arg Cys Thr Asn Leu Thr Lys Phe Leu Xaa Glu Ala Ser
             20
                                 25
Leu Val Gly Glu Glu Val Leu Arg Gly Thr Ser Leu Glu Val Thr Leu
Leu Glu Glu Xaa Leu Arg Xaa Val Arg Gly Thr Phe Thr Xaa Xaa Pro
                         55
Lys Gly Lys Leu Phe Pro Lys Thr Phe Xaa
                     70
<210> 1494 `
<211> 54
<212> PRT
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<400> 1494
Asp Ala Thr Ser Pro Ile Ile Glu Glu Leu Ile Thr Phe His Asp His
                 5
                                     10
                                                         15
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Ala Leu Ile Ile Ile Phe Leu Ile Cys Phe Leu Val Leu Tyr Ala Leu 20 25 30

Phe Leu Thr Leu Thr Thr Lys Leu Thr Asn Thr Asn Ile Xaa Asp Ala 35 40 45

Xaa Glu Ile Glu Thr Val

<210> 1495

<211> 38

<212> PRT

<213> Homo sapiens

<400> 1495

Phe Phe Gly His Pro Glu Val Tyr Ile Leu Ile Leu Pro Gly Phe Gly
1 5 10 15

Ile Ile Ser His Ile Val Thr Tyr Tyr Ser Gly Lys Lys Glu Pro Phe 20 25 30

Gly Tyr Ile Gly Met Val

<210> 1496

<211> 46

<212> PRT

<213> Homo sapiens

<400> 1496

Ala Phe Tyr His Ser Ser Leu Ala Pro Thr Pro Gln Leu Gly Gly His 1 5 10 15

Trp Pro Pro Thr Gly Ile Thr Pro Leu Asn Pro Leu Glu Val Pro Leu 20 25 30

Leu Asn Thr Ser Val Leu Leu Ala Ser Gly Val Ser Ile Thr 35 40 45

<210> 1497

<211> 60

<212> PRT

<213> Homo sapiens

<400> 1497

1565

Ala Gln Val Gly Leu Gln Asp Ala Thr Ser Pro Ile Ile Glu Glu Leu
1 5 10 15

Ile Thr Phe His Asp His Ala Leu Ile Ile Ile Phe Leu Ile Cys Phe 20 25 30

Leu Val Leu Tyr Ala Leu Phe Leu Thr Leu Thr Thr Lys Leu Thr Asn 35 40 45

Thr Asn Ile Ser Asp Ala Gln Glu Ile Glu Thr Val $50 \hspace{1.5cm} 55 \hspace{1.5cm} 60$ 

<210> 1498

<211> 45

<212> PRT

<213> Homo sapiens

<400> 1498

Thr Tyr Glu Tyr Thr Asp Tyr Gly Gly Leu Ile Phe Asn Ser Tyr Ile
1 5 10 15

Leu Pro Pro Leu Phe Leu Glu Pro Gly Asp Leu Arg Leu Leu Asp Gly
20 25 30

Asp Asn Arg Val Val Leu Pro Ile Glu Ala Pro Phe Val
35 40 45

<210> 1499

<211> 69

<212> PRT

<213> Homo sapiens

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<222> (63)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1499

His Arg Leu Asp Phe Leu Gln Leu Met Ile Asp Ser Gln Asn Ser Lys

1 10 15

Glu Thr Glu Ser His Lys Ala Leu Ser Asp Leu Glu Leu Ala Ala Gln
20 25 30

Ser Ile Ile Phe Ile Phe Ala Gly Tyr Glu Thr Thr Ser Ser Val Leu  $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45 \hspace{1.5cm}$ 

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Ser Phe Thr Leu Tyr Glu Leu Ala Thr His Pro Asp Val Gln Xaa Lys
Leu Gln Lys Gly Asp
<210> 1500
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<212> PRT
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Arg Leu Thr Ser Thr Ala Cys Ala Glu Ser Trp Asp Glu Leu Thr Leu
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Ala Arg Xaa Asp Leu Glu Xaa Gln Ile Glu Gly Leu Asn Glu Xaa Ala
Ser Leu Thr
         35
<210> 1501
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WO 00/55350

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<223> Xaa equals any of the naturally occurring L-amino acids

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Lys Xaa Val Ala Met Phe Ser Trp Asp Pro Xaa Leu Val Xaa Gly Gly
                                 25
Gly Ala Ser Lys Met Ala Val Ala His Ala Leu Xaa Glu Lys Ser Xaa
                             40
Ala Met Asp Trp Cys Gly Asn Asn Gly His Thr Gly Leu Leu Xaa Arg
                         55
Ala Leu Xaa Val His Ser Ser Xaa Pro Trp Ile Xaa Lys Leu Trp Gly
 65
                                         75
                     70
Xaa Ser His His
<210> 1503
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Val Gly Val Leu Gly Leu Asp Leu Trp Gln Val Lys Ser Gly Thr Ile
            5
Phe Asp Asn Phe Leu Ile Thr Asn Asp Glu Ala Tyr Ala Glu Glu Phe
             20
Gly Asn Glu Thr Trp Gly Val Thr Lys Ala Ala Glu Lys Gln Met Lys
Asp Lys Gln Asp Glu Glu Gln Arg Leu Lys Glu Glu Glu Glu Asp Lys
                         55
Lys Arg Lys Glu Xaa Xaa
 65
<210> 1504
<211> 42
<212> PRT
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<400> 1504

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Asn Thr Leu Xaa Tyr Xaa Met Lys Ala Thr Xaa Ile Leu Leu Xaa
                  5
                                     10
Ala Gln Leu Ser Trp Ala Gly Pro Phe His Gln Thr Gly Leu Leu Asp
                                 25
Ser Met Leu Glu His Glu Ala Tyr Xaa Ile
                             40
<210> 1505
<211> 72
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<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
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Xaa His Xaa Asp Cys Ser Xaa Pro Ile Val Ala Ala Gly Val Gly Glu
                 5
                                     10
                                                         15
```

1573

Phe Glu Ala Gly Ile Ser Lys Asn Gly Gln Thr Arg Glu His Ala Leu 20 25 30

Leu Ala Tyr Thr Leu Gly Val Lys Gln Leu Ile Val Gly Xaa Asn Lys

35
40
45

Met Asp Ser Thr Glu Pro Pro Tyr Ser Gln Lys Arg Tyr Glu Glu Ile  $50^{\circ}$  60

Xaa Lys Glu Val Ser Thr Tyr Xaa 65 70

<210> 1506

<211> 23

<212> PRT

<213> Homo sapiens

<400> 1506

Ala Glu Thr Arg Lys Arg Lys Gly Leu Lys Glu Gly Ile Pro Ala Leu 1 5 10 15

Asp Asn Phe Leu Asp Lys Leu 20

<210> 1507

<211> 87

<212> PRT

<213> Homo sapiens

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<221> SITE

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<400> 1507

Lys Leu Pro Leu Lys Ala Lys Met Gly Lys Glu Lys Thr His Ile Asn 1 5 10 15

Ile Val Val Ile Gly His Val Asp Ser Gly Lys Ser Thr Thr Gly
20 25 30

His Leu Ile Tyr Lys Cys Gly Gly Ile Asp Lys Arg Thr Ile Glu Lys 35 40 45

Phe Glu Lys Glu Ala Ala Glu Met Gly Lys Gly Ser Phe Lys Tyr Ala 50 60

1574

Trp Val Leu Asp Lys Leu Lys Ala Glu Arg Glu Arg Gly Ile Xaa Ile 65 70 75 Gly Tyr Leu Leu Val Glu Ile 85 <210> 1508 <211> 110 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (4) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (74) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (96) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (99) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (108) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1508 Pro Asp Pro Xaa Ile Phe Ala Pro Pro Ile Ser Ala Pro Pro Pro Ser 10 Ser Gly Thr Arg Asp Arg Ser Gln Arg Ser Leu Asp His Tyr Glu Pro 20 Pro Val Gln Pro Arg Gly Pro Cys Pro Arg Ser Phe Glu Leu Leu Val

Arg Ala Val Gly Ala Ala Ala Ala Asp Ala Arg Ala His Arg

55

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Gln Arg Trp Ser Cys Arg Cys Cys Val Xaa Arg Ala Ala Leu Pro Phe
                     70
                                         75
Val Tyr Arg Pro Arg Lys Glu Ser Ile Pro Lys Met Ile Ser Asn Xaa
                                     90
Gln Val Xaa Ala Ile Gly Pro Thr Val Leu Gln Xaa Gly Lys
                                105
<210> 1509
<211> 60
<212> PRT
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<400> 1509 Ser Phe Val Glu Leu Pro Leu Ala Ser Ile Val Ser Leu His Ala Ser 10 Ser Xaa Gly Gly Arg Leu Gln Thr Ser Pro Xaa Pro Ile Gln Xaa Thr 25 Pro Pro Lys Asp Thr Cys Ser Pro Xaa Leu Xaa Met Ser Leu Xaa Pro 35 Xaa Lys Leu Cys Arg Arg Arg His Gly Pro Trp Tyr 50 <210> 1510 <211> 116 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (91) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (92) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (108) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (115) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1510 Gly Thr Ser Ser Gln Arq Phe Tyr Lys Glu Asn Leu Gly Gln Gly 5 10 Trp Met Thr Gln Lys His Glu Arg Met Lys Val Tyr Val Pro Thr Gly Phe Ser Ala Phe Pro Phe Glu Leu Leu His Thr Pro Glu Lys Trp Val 40

Arg Phe Lys Tyr Pro Lys Leu Ile Ser Tyr Ser Tyr Met Val Arg Gly

1577

50 55 60 Gly His Phe Ala Ala Phe Glu Glu Pro Glu Leu Leu Ala Gln Asp Ile 70 75 Arg Lys Phe Leu Ser Val Leu Glu Arg His Xaa Xaa Thr Pro Leu Pro Pro Leu Ala Thr Ser Pro His Asn Ala Leu Gln Xaa Phe Leu Gly Glu 105 Asp Asn Xaa Phe 115 <210> 1511 <211> 156 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (11) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (104) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (143) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1511 Arg Glu Gln Lys Leu Glu Leu His Arg Gly Xaa Gly Arg Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Arg Asp Arg Gly Gly Phe Pro Pro Arg Gly Pro Arg Gly Ser Arg Gly Asn Pro Ser Gly Gly 40 Gly Asn Val Gln His Arg Ala Gly Asp Trp Gln Cys Pro Asn Pro Ser 55 Ile Gly Asp Phe Cys Cys Asp Val Ile Val Cys Arg Gly Cys Gly Asn

Gln Asn Phe Ala Trp Arg Thr Glu Cys Asn Gln Cys Gly Asp Arg Gly 85 90 Arg Gly Gly Pro Gly Gly Met Xaa Gly Gly Arg Gly Gly Leu Met Asp 105 Arg Gly Gly Pro Gly Gly Met Phe Arg Gly Gly Arg Gly Gly Asp Arg 115 120 125 Gly Gly Phe Arg Gly Gly Arg Gly Met Asp Arg Gly Gly Phe Xaa Gly Gly Arg Arg Gly Gly Pro Gly Gly Pro Leu Asp Leu <210> 1512 <211> 102 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (41) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (52) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (58) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (64) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (89) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (101)

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<400> 1512

Pro Met Arg Arg Pro Arg Gly Glu Pro Ala Pro Gly Pro Arg Asp Arg

1 5 10 15

Leu Arg Glu Arg Pro Ala Gln Gly Pro Gly Ser His Val Arg Val Ala
20 25 30

Pro Leu Ala Thr Val Asn Ile Leu Xaa Ser Leu Cys Gln Leu Arg Cys 35 40 45

Leu Pro Phe Xaa Ala Leu His Phe Val Xaa Ser Pro Gly Phe Ile Xaa 50 55

Tyr Ile Ser Gly Thr Pro His Ala Leu Ile Val Arg Arg Tyr Leu Ser 65 70 75 80

Leu Leu Asp Thr Ala Val Glu Leu Xaa Leu Pro Arg Tyr Arg Gly Pro
85 90 95

Arg Leu Pro Arg Xaa Gln 100

<210> 1513

<211> 139

<212> PRT

<213> Homo sapiens

<220>

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<400> 1513

Glu Thr Glu Arg Gly Phe Glu Glu Leu Pro Leu Cys Ser Cys Arg Met
1 5 10 15

Glu Ala Pro Lys Ile Asp Ser Ile Ser Glu Arg Ala Gly His Lys Cys 20 25 30

Met Ala Thr Glu Ser Val Asp Gly Glu Leu Ser Gly Cys Asn Ala Ala 35 40 45

Ile Leu Lys Arg Glu Thr Met Arg Pro Ser Ser Arg Val Ala Leu Met 50 55 60

Val Leu Cys Glu Thr His Arg Ala Arg Met Val Lys His His Cys Cys 65 70 75 80

Pro Gly Cys Gly Tyr Phe Cys Thr Ala Gly Thr Phe Leu Glu Cys His 90 Pro Asp Phe Arg Val Ala His Arg Phe His Lys Ala Cys Val Ser Gln 105 Leu Asn Gly Met Val Phe Cys Pro His Cys Gly Glu Asp Thr Ser Glu 115 120 Ala Gln Xaa Val Thr Ile Pro Gly Val Thr Gly 130 135 <210> 1514 <211> 72 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (11) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (19) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (23) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (25) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (30) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (37) <223> Xaa equals any of the naturally occurring L-amino acids <220>

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<400> 1514
Ile Arg His Glu Ser Ile Ser Gly Ala Ser Xaa Lys Asp Ile Val His
                                     10
Ser Gly Xaa Ala Tyr Thr Xaa Glu Xaa Ser Ala Arg Gln Xaa Met Arg
Thr Ala Met Lys Xaa Asn Leu Gly Xaa Asp Leu Arg Thr Ala Ser Tyr
                             40
Xaa Asn Ala Ile Xaa Xaa Val Phe Lys Val Tyr Xaa Glu Ala Gly Val
                         55
                                             60
Thr Phe Thr Xaa Met Xaa His Gly
                     70
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<210> 1515
<211> 88
<212> PRT
<213> Homo sapiens
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Leu Tyr Pro Pro Ala Cys Ser Ala Thr Arg Thr Pro Ser Thr Met Thr
                                     10
Thr Ser Ala Ser Ser His Leu Asn Lys Gly Ile Lys Gln Val Tyr Met
             20
Ser Leu Pro Gln Gly Glu Lys Val Gln Ala Met Tyr Ile Trp Ile Asp
Gly Thr Gly Glu Gly Leu Arg Cys Lys Thr Arg Thr Leu Asp Ser Glu
                         55
Pro Lys Cys Val Glu Glu Leu Pro Glu Trp Asn Phe Asp Gly Ser Ser
                     70
Thr Xaa Gln Ser Xaa Gly Ser Ser
                 85
<210> 1516
<211> 105
<212> PRT
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<223> Xaa equals any of the naturally occurring L-amino acids

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Gly Arg Glu Ser Gln Asp Thr Xaa Phe Xaa Xaa Leu Val Glu Arg Val
 1
                  5
                                     10
                                                          15
Ile Gln Gln Leu Glu Gly Ala Phe Ala Leu Xaa Phe Lys Ser Val His
Phe Pro Gly Gln Ala Xaa Gly Thr Arg Arg Gly Ser Pro Leu Leu Ile
                             40
Gly Val Arg Ser Glu His Lys Leu Ser Thr Asp His Ile Pro Ile Leu
     50
                         55
Tyr Arg Thr Gly Lys Asp Lys Lys Gly Ser Cys Asn Leu Ser Arg Val
                     70
                                         75
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Asp Ser Thr Thr Cys Leu Xaa Pro Xaa Glu Glu Lys Ala Xaa Glu Tyr
                 85
                                      90
Tyr Phe Ala Ser Asp Ala Xaa Ala Ala
            100
<210> 1517
<211> 121
<212> PRT
<213> Homo sapiens
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Gly Xaa Glu Lys Arg Glu Arg Glu Arg Glu Arg Leu Val Ile Arg Gln
Xaa Pro Xaa Val Gln Xaa Leu Gln Ala Tyr Lys Pro Arg Glu Asn Asp
             20
Xaa Leu Ala Leu Glu Lys Ala Asp Val Val Met Val Thr His Gln Ser
Ser Ala Arg Leu Ala Gly Gly Arg Glu Ala Leu Arg Arg Gly Ala Arg
Leu Val Ser Cys Asp Ser Xaa Xaa Ser Ser Phe Pro Thr Gln Arg Ser
                   70
                                        75
Val Thr Gln Asn Leu Lys Gly Ser Phe Ile Glu Cys Lys Thr Cys Gln
                                     90
Thr Thr Ala Xaa Gly Asn Ser Lys Pro Xaa Phe Ser Xaa Xaa Glu Gly
                                105
Val Phe Val Ser Trp Lys Asn Lys Leu
        115
                        120
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<210> 1518

<211> 146

<212> PRT

<213> Homo sapiens

<220>

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Arg Gly Pro Ala Gln Arg Gly Glu Gly Ala Arg Glu Ala Asn Lys Lys
Ile Glu Lys Gln Leu Gln Lys Asp Lys Gln Val Tyr Arg Ala Thr His
                                 25
Arg Leu Leu Leu Gly Ala Gly Glu Ser Gly Lys Ser Thr Ile Val
         35
                             40
Lys Gln Met Arg Ile Leu His Val Asn Gly Phe Asn Gly Asp Ser Glu
                        55
Lys Ala Thr Lys Val Gln Xaa Ile Lys Asn Asn Leu Lys Glu Ala Ile
                     70
Glu Thr Ile Val Ala Ala Met Ser Asn Leu Val Pro Pro Val Glu Leu
                 85
                                     90
Ala Asn Pro Glu Asn Gln Phe Arg Val Asp Tyr Ile Leu Ser Val Met
                                105
Asn Val Pro Asp Phe Xaa Phe Pro Pro Glu Phe Tyr Glu His Ala Lys
       115
                            120
Ala Leu Trp Xaa Asp Glu Xaa Val Arg Xaa Cys Tyr Glu Arg Ser Asn
                       135
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Glu Tyr 145

<210> 1519

<211> 137

<212> PRT

<213> Homo sapiens

<220>

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<400> 1519

Asp Ser Gln Arg Gln Ala Thr Lys Asp Ala Gly Val Ile Ala Gly Leu

1 10 15

Asn Val Leu Arg Ile Ile Asn Glu Pro Thr Ala Ala Ala Ile Ala Tyr 20 25 30

Gly Leu Asp Arg Thr Gly Lys Gly Glu Arg Asn Val Leu Ile Phe Asp 35 40

Leu Gly Gly Gly Thr Phe Asp Val Ser Ile Leu Thr Ile Asp Asp Gly 50 60

Ile Phe Glu Val Lys Ala Thr Xaa Gly Asp Thr His Leu Gly Gly Glu 65 70 75 80

Asp Phe Asp Asn Arg Leu Val Asn His Phe Val Glu Glu Phe Lys Arg 85 90 95

Lys His Lys Lys Asp Ile Ser Gln Asn Lys Arg Ala Val Arg Arg Leu 100 105 110

Arg Thr Ala Ala Arg Gly Pro Arg Gly Pro Cys Arg Pro Ala Pro Arg 115 120 125

Pro Ala Trp Arg Ser Thr Ser Leu Phe 130 135

<210> 1520

<211> 100

<212> PRT

<213> Homo sapiens

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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1520
Cys Arg Lys Ser Ser Trp Lys Arg Trp Trp Pro Gln Ser Lys Leu Xaa
Thr Arg Xaa Ile Val Thr Ile Gly Ile Lys Ala Met Ala Thr Met Asp
             20
                                 25
Ile Thr Ala Lys Val Thr Val Val Met Glu Asp Met Xaa Tyr Thr Gly
                             40
Tyr Asn Asn Tyr Tyr Gly Tyr Gly Asp Tyr Ser Asn Gln Gln Ser Gly
                         55
Tyr Gly Lys Val Ser Arg Arg Gly Gly His Gln Asn Ser Tyr Lys Pro
Tyr Leu Asn Tyr Ser Ile Cys Asn Leu Ser Pro Thr Gly Gly Glu Ala
                                     90
Tyr Phe Xaa Ile
           100
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<210> 1521 <211> 129 <212> PRT <213> Homo sapiens <220> <221> SITE

1589

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Asp Ala Trp Ala Leu Ala Pro Gly Pro Val Leu Phe Ser Asn Met Val
                 5
Cys Leu Lys Phe Pro Gly Ser Ser Cys Met Ala Ala Leu Thr Val Thr
Leu Met Val Leu Asn Ser Pro Leu Ala Leu Ala Gly Asp Thr Arg Pro
                             40
Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
Glu Arg Val Arg Phe Leu Asp Xaa Tyr Phe Tyr His Gln Glu Glu Tyr
Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Xaa Leu
                                     90
Gly Arg Pro Asn Ser Glu Tyr Trp Asn Ser Gln Lys Asp Xaa Xaa Asp
Arg Ser Gly Pro Arg Trp Thr Pro Thr Ala Xaa Thr Leu Arg Gly Trp
                           120
                                                125
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Val

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<210> 1522
<211> 113
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<213> Homo sapiens
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<400> 1522
Xaa Xaa Thr Asp Ser Xaa Arg Pro Asp Ser Arg Val Asp Pro Arg Val
                                     10
Arg Glu Val Thr Asp Tyr Ala Ile Ala Arg Arg Ile Val Asp Leu His
             20
                                 25
Ser Arg Ile Glu Glu Ser Ile Xaa Asn Ile Tyr Xaa Leu Asp Asp Ile
Arg Arg Tyr Leu Xaa Tyr Ala Arg Lys Xaa Lys Pro Lys Asn Ser Lys
     50
                                             60
Xaa Ser Xaa Asp Phe Ile Val Glu Gln Xaa Lys His Leu Arg Pro Xaa
                                         75
Asp Gly Phe Trp Ser Ser Pro Val Phe Xaa Glu Gly Xaa Ser Cys Gly
                                     90
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Xaa Ile Glu Gly Leu Gly Ser Val Ser Leu Gly Ser Gln Xaa Leu Arg

1592

100 105 110

Val

<210> 1523

<211> 32

<212> PRT

<213> Homo sapiens

<220>

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<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1523

Pro Cys Lys Gly Ser Ile Ile Thr Trp Ser Leu Ile Arg Asp Leu Xaa 1 5 10 15

Glu Trp Leu His Glu Gly Gln Leu Ala Leu Thr Phe Asn Gln Xaa Asn 20 25 30

<210> 1524

<211> 28

<212> PRT

<213> Homo sapiens

<400> 1524

Pro Cys Lys Gly Ser Ile Ile Thr Cys. Ser Leu Asn Arg Asp Leu Tyr

Glu Trp Leu His Glu Gly Ser Ala Val Ser Tyr Phe

<210> 1525

<211> 92

<212> PRT

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<213> Homo sapiens
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<400> 1525
Xaa Glu Gln Lys Leu Xaa Leu His Arg Gly Gly Gly Arg Ser Arg Thr
                                     10
                                                          15
```

Ser Gly Ser Pro Xaa Leu Xaa Glu Phe Gly Thr Ser Gly Thr Arg Pro
20 25 30

Cys Gly Val Tyr Thr Pro Arg Cys Gly Ser Gly Leu Leu Cys Tyr Pro 35 40 45

Pro Arg Gly Val Glu Lys Pro Leu His Thr Leu Met His Gly Gln Gly 50 60

Val Cys Met Glu Leu Ala Xaa Ile Glu Ala Xaa Xaa Glu Ser Leu Xaa 65 70 75 80

Pro Ser Asp Lys Asp Glu Gly Asp His Pro Asn Xaa 85 90

<210> 1526

<211> 154

<212> PRT

<213> Homo sapiens

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<400> 1526

Thr Glu Gln Arg Glu Leu Thr Met Glu Phe Gly Leu Ser Trp Leu Phe
20 25 30

Leu Val Ala Ile Leu Lys Gly Val Gln Cys Glu Val Gln Leu Val Glu
35 40 45

Ser Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys
50 55 60

Thr Val Ser Gly Phe Thr Phe Arg Asn Tyr Ala Met Ser Trp Val Arg 65 70 75 80

Gln Gly Pro Gly Lys Gly Leu Glu Trp Val Ser Ala Ile Asp Gly Ser

Gly Tyr Asn Thr Tyr Glu Arg Ser Leu Gln Gly Arg Phe Ser Val Ser Arg Asp Asn Ser Xaa Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu 120 Gly Ala Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Lys Thr Glu Arg Met Gly Thr Gly Trp Tyr Gly Arg Asn Asp Tyr 145 150 <210> 1527 <211> 135 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (95) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (129) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (133) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (134) <223> Xaa equals any of the naturally occurring L-amino acids Gly Lys Leu Val Arg Leu Gln Val Pro Val Arg Asn Ser Arg Val Asp Pro Arg Val Arg Thr Val Thr Pro Gly Glu Thr Ala Ser Ile Ser Cys 25 Arg Ser Ser Gln Thr Leu Leu His Val Asn Gly His Asn Tyr Leu Asp 35 40 Trp Tyr Met Gln Lys Pro Gly Gln Pro Pro Gln Leu Val Val Tyr Arg

Gly Ser Asn Arg Ala Ser Gly Val Pro Asp Arg Phe Ser Gly Gly Gly 70 75 Ser Gly Thr Asp Phe Thr Leu Arg Ile Thr Thr Val Glu Ala Xaa Asp 85 90 Val Gly Val Tyr Tyr Cys Met Gln Ala Leu Gln Ser Pro Tyr Thr Phe 100 105 Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Gly Cys Thr Ile 120 Xaa Leu His Leu Xaa Xaa Ile <210> 1528 <211> 139 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (117) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (137) <223> Kaa equals any of the naturally occurring L-amino acids <400> 1528 Arg Glu Gln Lys Leu Glu Leu His Arg Gly Gly Gly Arg Ser Arg Thr 10 Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Gly Trp Ala Leu 20 Arg Ile Ser Arg Phe Leu Pro Gly Phe His Ser Phe Ala Pro Cys Thr 40 Val Ala Pro Ser Leu Arg Ala Gln Pro Ala Lys Gln Arg Ala Pro Val Ala Gly Val Met Gln Arg Ala Arg Pro Thr Leu Trp Ala Ala Ala Leu 70

Thr Leu Leu Val Leu Leu Arg Gly Pro Pro Val Ala Arg Ala Gly Ala

Ser Ser Gly Gly Leu Gly Pro Val Val Arg Cys Glu Pro Cys Asp Ala 100 105 110

Arg Ala Leu Ala Xaa Cys Ala Pro Ser Ala Arg Arg Val Arg Arg Asn 115 120 125

Leu Val Arg Gln Ala Gly Leu Ala Xaa Ala Ala 130 135

<210> 1529

<211> 135

<212> PRT

<213> Homo sapiens

<400> 1529

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Ile Asp Asp Thr Asn 1 5 10 15

Ile Thr Arg Leu Gln Leu Glu Thr Glu Ile Glu Ala Leu Lys Glu Glu 20 25 30

Leu Leu Phe Met Lys Lys Asn His Glu Glu Glu Val Lys Gly Leu Gln 35 40 45

Ala Gln Ile Ala Ser Ser Gly Leu Thr Val Glu Val Asp Ala Pro Lys 50 55 60

Ser Gln Asp Leu Ala Lys Ile Met Ala Asp Ile Arg Ala Gln Tyr Asp 65 70 75 80

Glu Leu Ala Arg Lys Asn Arg Glu Glu Leu Asp Lys Tyr Trp Ser Gln 85 90 95

Gln Ile Glu Glu Ser Thr Thr Val Val Thr Thr Gln Ser Ala Glu Val 100 105 110

Gly Ala Ala Glu Thr Thr Leu Thr Glu Leu Arg Arg Thr Val Gln Ser 115 120 125

Leu Glu Ile Asp Leu Gly Leu 130 135

<210> 1530

<211> 132

<212> PRT

<213> Homo sapiens

<400> 1530 Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Gln Val Pro Ala Arg Lys Lys Arg Pro Lys Arg Leu Arg Thr Gly Asn Met Val Arg Ser Gly Asn Lys Ala Ala Val Val Leu Cys Met Asp Val Gly Phe Thr Met Ser 40 Asn Ser Ile Pro Gly Ile Glu Ser Pro Phe Glu Gln Ala Lys Lys Val 50 55 Ile Thr Met Phe Val Gln Arg Gln Val Phe Ala Glu Asn Lys Asp Glu Ile Ala Leu Val Leu Phe Gly Thr Asp Gly Thr Asp Asn Pro Leu Ser Gly Gly Asp Gln Tyr Gln Asn Ile Thr Val His Arg His Leu Met Leu 100 105 Pro Asp Phe Asp Leu Leu Glu Asp Ile Glu Lys Gln Asn Pro Thr Arg 120 Phe Ser Thr Gly 130 <210> 1531 <211> 94 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (18) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (27) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE

<223> Xaa equals any of the naturally occurring L-amino acids

<222> (34)

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<222> (61)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (69)
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<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
<222> (94)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1531
Arg Lys Arg Leu Lys Gly Glu Glu Gln Lys Leu Leu Arg Asn Ala Arg
 1
                  5
                                     10
Arg Xaa Gln Lys Met Ala Cys Gln Met Thr Xaa Asn His Ser Ser Val
Ser Xaa Leu Lys Gly Ser Ser Leu Gln Asp Arg Arg Ala Ser Arg Phe
                             40
Leu Ile Lys Ser Val Gln Lys Ser Ser Gly Val Gln Xaa Asp Pro Ser
                         55
Ser Ser Ile Ser Xaa Pro Ser Leu Thr Ala Xaa Trp Ser Xaa Leu Pro
Trp His Leu Arg Gly Pro Lys Ala Ala Lys Thr Leu Lys Xaa
                 85
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<210> 1532

<211> 153

<212> PRT

<213> Homo sapiens

1600

<400> 1532 Gln Thr Thr Met Cys Tyr Gly Lys Cys Ala Arg Cys Ile Gly His Ser Leu Val Gly Leu Ala Leu Leu Cys Ile Ala Ala Asn Ile Leu Leu Tyr Phe Pro Asn Gly Glu Thr Lys Tyr Ala Ser Glu Asn His Leu Ser Arg Phe Val Trp Phe Phe Ser Gly Ile Val Gly Gly Leu Leu Met Leu 55 Leu Pro Ala Phe Val Phe Ile Gly Leu Glu Gln Asp Asp Cys Cys Gly Cys Cys Gly His Glu Asn Cys Gly Lys Arg Cys Ala Met Leu Ser Ser Val Leu Ala Ala Leu Ile Gly Ile Ala Gly Ser Gly Tyr Cys Val Ile 105 Val Ala Ala Leu Gly Leu Ala Glu Gly Pro Leu Cys Leu Asp Ser Leu 115 120 Gly Gln Trp Asn Tyr Thr Phe Ala Ser Thr Glu Gly Gln Val Pro Ser 140 135 Gly Tyr Leu His Met Val Arg Val His 150 <210> 1533 <211> 142 <212> PRT <213> Homo sapiens <400> 1533 Leu Cys Leu Leu Arg Thr Thr Val Thr Glu Val Ser Arg Ala Phe Ser Leu Leu Cys Lys Met Ala Thr Leu Lys Glu Lys Leu Ile Ala Pro Val

Ala Glu Glu Glu Ala Thr Val Pro Asn Asn Lys Ile Thr Val Val Gly

Val Gly Gln Val Gly Met Ala Cys Ala Ile Ser Ile Leu Gly Lys Ser

55

1601

Leu Ala Asp Glu Leu Ala Leu Val Asp Val Leu Glu Asp Lys Leu Lys 75 Gly Glu Met Met Asp Leu Gln His Gly Ser Leu Phe Leu Gln Thr Pro 85 90 Lys Ile Leu Ala Asp Lys Asp Tyr Ser Val Thr Ala Asn Ser Lys Ile 105 Val Val Val Thr Ala Gly Val Arg Gln Gln Glu Gly Glu Ser Arg Leu 115 120 Asn Leu Val Gln Arg Asn Val Asn Val Phe Lys Phe Ile Ile 130 135 <210> 1534 <211> 67 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (42) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (48) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (54) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (61) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1534 Ala His Cys His Ala Pro Pro Thr Thr Ala Arg Arg Ala Phe Pro Ile 10 5 Pro Phe Gly Ser Lys Ser Asn Met Ala Thr Leu Lys Asp Gln Leu Ile 20

Tyr Asn Leu Leu Lys Glu Glu Gln Thr Xaa Gln Asn Lys Ile Thr Xaa 35 40 45

Val Gly Val Gly Ala Xaa Gly Met Ala Cys Ala Ile Xaa Ile Leu Met 55 Lys Asp Leu 65 <210> 1535 <211> 72 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (1) <223> Xaa equals any of the naturally occurring L-amino acids <220> . <221> SITE <222> (8) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1535 Xaa Lys Lys Tyr Leu Gly Asp Xaa Ile Glu Gly Thr Pro Ala Gly Thr Gly Pro Glu Phe Pro Gly Leu Leu Thr Cys Leu Leu Gln Leu Ile Met 25 Val Thr Asn Lys Ala Ile Ala Ser Gln Ile Ser Gln Ile Lys His Phe Phe His Cys Ile Leu Val Val Cys Pro Asn Ser Ser Met Tyr Leu Ile Met Ser Gly Ser Ile Leu His 65 70 <210> 1536 <211> 80 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (20) <223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE
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<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 1536
Gly Lys Ala Trp Gly Ser Glu Cys Glu Lys Cys Pro Leu Pro Gly Thr
                 5
                                    10
Glu Ala Phe Xaa Glu Ile Cys Pro Ala Gly His Gly Tyr Thr Tyr Ala
Ser Ser Asp Ile Arg Leu Ser Met Arg Lys Ala Glu Xaa Glu Glu Leu
                             40
Ala Xaa Pro Pro Arg Glu Gln Gly Gln Xaa Ser Ser Trp Ala Leu Pro
Gly Pro Thr Xaa Lys Gln Pro Leu Arg Val Arg His Gly His Leu Ala
                    70
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<211> 137
<212> PRT
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<210> 1537

<222> (58)

<223> Xaa equals any of the naturally occurring L-amino acids

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<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (137)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1537
Arg Lys Gln Cys Gln Asp Ser Lys Asp Ser Asn His Leu Pro Lys Met
                                     10
Ser Leu Ser Ala Phe Thr Leu Phe Leu Ala Leu Ile Gly Gly Thr Ser
                                 25
Gly Gln Tyr Tyr Asp Tyr Asp Phe Pro Leu Ser Ile Tyr Gly Gln Ser
         35
Ser Pro Asn Cys Ala Pro Glu Cys Asn Xaa Pro Glu Ser Tyr Pro Ser
Ala Met Tyr Cys Asp Glu Leu Lys Leu Xaa Ser Val Pro Met Val Pro
                     70
                                         75
Pro Gly Ile Lys Tyr Leu Tyr Leu Arg Asn Asn Gln Ile Asp His Ile
                 85
                                     90
Asp Glu Lys Ala Phe Glu Asn Val Thr Asp Leu Gln Trp Leu Ile Leu-
                                105
Asp His Asn Leu Leu Glu Asn Ser Lys Xaa Lys Gly Arg Val Phe Ser
       115
                            120
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Lys Leu Lys Gln Leu Xaa Lys Xaa Xaa 130 135

<210> 1538 <211> 144 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (134) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (137) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1538 Tyr Gln Val Tyr Ser Lys Ile Gln Ala Thr Asn Thr Trp Leu Phe Leu 10 Ser Ser Cys Asn Gly Asn Glu Thr Ser Leu Trp Asp Cys Lys Asn Trp 20 25 Gln Trp Gly Gly Leu Thr Cys Asp His Tyr Glu Glu Ala Lys Ile Thr Cys Ser Ala His Arg Glu Pro Arg Leu Val Gly Gly Asp Ile Pro Cys Ser Gly Arg Val Glu Val Lys His Gly Asp Thr Trp Gly Ser Ile Cys 65 70 Asp Ser Asp Phe Ser Leu Glu Ala Ala Ser Val Leu Cys Arg Glu Leu 90 Gln Cys Gly Thr Val Val Ser Ile Leu Gly Gly Ala His Phe Gly Glu 100 105 Gly Met Asp Arg Ser Gly Leu Lys Asn Ser Ser Val Glu Gly His Glu 120

Ser Pro Ser Phe Ile Xaa Pro Val Xaa Thr Pro Pro Lys Arg Asn Leu

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<210> 1539
<211> 85
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1539
Asn Met Ala Gly Val Glu Glu Val Ala Ala Ser Gly Ser His Leu Asn
Gly Asp Leu Asp Pro Asp Asp Arg Glu Glu Gly Ala Ala Ser Thr Ala
             20
Glu Glu Xaa Ala Lys Lys Lys Arg Arg Lys Lys Lys Ser Lys Gly
                             40
Pro Ser Ala Gly Lys Glu Ser Phe Met Phe Ser Gln Ser Pro Pro Gly
                         55
                                              60
Thr Ala Glu Leu Phe Gly Ser Gly Pro Leu Arg Gly Pro Gly Pro Gly
Pro Gln Ser Pro Asp
<210> 1540
<211> 36
<212> PRT.
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1540
Gly Val Gly Phe Arg Glu Gly Thr Xaa Gly Ala Gln Thr Gln Arg Ile
                                      10
Arg Xaa Arg Val Pro Xaa Asn Trp Lys Met Xaa Phe Glu Pro Ile Ser
             20
                                  25
Ser Thr Lys Phe
         35
<210> 1541
<211> 144
<212> PRT
<213> Homo sapiens
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		123)													
<22	3> X	aa e	qual	s an	y of	the	nat	ural	ly c	ccur	ring	L-a	mino	aci	ds
<22	0>														
	1> s	ITE													
		131)													
	•	•	qual	s an	y of	the	nat	ural	ly c	ccur	ring	L-a	mino	aci	ds
<22	0>														
<22	1> S	ITE													
	•	132)													
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<220> <221> SITE															
	•	143)	ana l	e an	y of	the	nati	ıral	10 0	COUR	rina	T 21	mino	aci	do
-22.	3- A	aa e	quar	5 411	y OI	CHE	na c	urar	ry C	ccur	Ling	L-a	штио	acti	u S
<40	0> 1	541													
Arg	Thr	Xaa	Ala	Xaa	Gly	Glu	Arg	Ala	Cys	Arg	Ser	Thr	Leu	Val	Asp
1				5					10					15	
Pro	Lys	Xaa	Val	Xaa	Thr	Val	Phe	Ser	Leu	Gly	Ala	Cys	Met	Glu	Gly
			20					25					30		
T 011	7	T1.	T	7	3	3	T		<b>63.</b>	71.	C			21-	<b>01</b>
Leu	ASII	35	Leu	Leu	ASII	Arg	40	ren	GIY	Ile	ser	45	Tyr	AId	GIU
		33					40					43			
Gln	Pro	Ala	Lys	Gly	Glu	Val	Trp	Ser	Glu	Asp	Val	Arg	Lys	Leu	Ala
	50		-	•		5 <b>5</b>	•			•	60	_	-		
Val	Val	His	Glu	Ser	Glu	Gly	Leu	Leu	Gly	Tyr	Ile	Tyr	Cys	Asp	Phe
65					70					75					80
Pho	Gla	224	212	7.00	T	Dro	uio	C1-	8	C	uio	Dho	mh.~	Tlo	N ~~~
Pne	GIN	Arg	Ala	ASP 85	гÀа	Pro	HIS	GIN	Asp 90	Суз	nis	Pne	THE	95	Arg
				65					90					93	
Gly	Gly	Arq	Leu	Lvs	Glv	Arg	Trp	Glu	Thr	Xaa	Gln	Leu	Pro	Val	Val
•	•		100	-3-	2	3		105					110		
Ser	Ser	Tyr	Ala	Gly	Ile	Phe	Pro	Val	Pro	Xaa	Arg	Glu	Phe	Ser	Asn
		115					120					125			
Phe		Xaa	Xaa	Leu	Gly		Met	Gly	Lys	Pro		Pro	Gly	Xaa	Gly
	130					135					140				

<210> 1542 <211> 145 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (40) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1542 Ala Glu Arg Thr Pro Cys Arg Arg Pro Ala Glu Met Leu Arg Leu Pro 10 Thr Val Phe Arg Gln Met Arg Pro Val Ser Arg Val Leu Ala Pro His Leu Thr Arg Ala Tyr Ala Lys Xaa Val Lys Phe Gly Ala Asp Ala Arg 40 Ala Leu Met Leu Gln Gly Val Asp Leu Leu Ala Asp Ala Val Ala Val 55 Thr Met Gly Pro Lys Gly Arg Thr Val Ile Ile Glu Gln Ser Trp Gly 75 Ser Pro Lys Val Thr Lys Asp Gly Val Thr Val Ala Lys Ser Ile Asp Leu Lys Asp Lys Tyr Lys Asn Ile Gly Ala Lys Leu Val Gln Asp Val Ala Asn Asn Thr Asn Glu Glu Ala Gly Asp Gly Thr Thr Thr Ala Thr 120 Val Leu Ala Arg Ser Ile Ala Lys Glu Gly Phe Glu Lys Ile Ser Lys 130 135 Gly 145 <210> 1543 <211> 135 <212> PRT <213> Homo sapiens <400> 1543

Lys Phe Gly Ala Asp Ala Arg Ala Leu Met Leu Gln Gly Val Asp Leu

Leu Ala Asp Ala Val Ala Val Thr Met Gly Pro Lys Gly Arg Thr Val Ile Ile Glu Gln Ser Trp Gly Ser Pro Lys Val Thr Lys Asp Gly Val 40 Thr Val Ala Lys Ser Ile Asp Leu Lys Asp Lys Tyr Lys Asn Ile Gly 55 Ala Lys Leu Val Gln Asp Val Ala Asn Asn Thr Asn Glu Glu Ala Gly Asp Gly Thr Thr Thr Ala Thr Val Leu Ala Arg Ser Ile Ala Lys Glu 90 Gly Phe Glu Lys Ile Ser Lys Gly Ala Asn Pro Val Glu Ile Arg Arg 105 Gly Val Met Leu Ala Val Asp Ala Val Ile Ala Glu Leu Lys Lys Gln 120 Ser Lys Pro Val Thr Thr Pro 130 <210> 1544 <211> 84 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (68) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (72) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (77) <223> Xaa equals any of the naturally occurring L-amino acids <220>

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1611

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His Leu Val Arg Arg Tyr Leu Gly Asp Ala Ser Val Xaa Pro Asp Pro
                                 25
             20
Leu Gln Met Pro Thr Phe Pro Pro Asp Tyr Gly Phe Pro Glu Arg Lys
Xaa Arg Xaa Met Val Ala Thr Xaa Xaa Xaa Met Met Asp Ala His Xaa
                         55
Ser Ser Xaa Cys Gly Xaa Thr Ala Pro Thr Asn Ser Ser Gly Cys Ser
65
                     70
Ile Xaa Thr Leu Xaa Leu Pro Pro Leu Pro Trp Leu Ala Asn Gln Glu
Arg Asp Lys Xaa Glu Xaa Xaa Gln Thr Pro Xaa Xaa Phe Xaa Xaa Pro
            100
                                105
                                                    110
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<210> 1547 <211> 142 <212> PRT <213> Homo sapiens <400> 1547 Lys Val Ser Ala Val Met Ala Phe Leu Ala Ser Gly Pro Tyr Leu Thr His Gln Gln Lys Val Leu Arg Leu Tyr Lys Arg Ala Leu Arg His Leu Glu Ser Trp Cys Val Gln Arg Asp Lys Tyr Arg Tyr Phe Ala Cys Leu 40 Met Arg Ala Arg Phe Glu Glu His Lys Asn Glu Lys Asp Met Ala Lys Ala Thr Gln Leu Leu Lys Glu Ala Glu Glu Glu Phe Trp Tyr Arg Gln 75 His Pro Gln Pro Tyr Ile Phe Pro Asp Ser Pro Gly Gly Thr Ser Tyr Glu Arg Tyr Asp Cys Tyr Lys Val Pro Glu Trp Cys Leu Asp Asp Trp His Pro Ser Glu Lys Ala Met Tyr Pro Asp Tyr Phe Ala Lys Arg Glu 120 Gln Trp Lys Lys Leu Arg Glu Gly Lys Leu Gly Thr Arg Gly 130 135

<210> 1548

<211> 98

<212> PRT

<213> Homo sapiens

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Xaa Thr

<210> 1549

<211> 138

<212> PRT

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                     5
                                        10
  Tyr Leu Ser Ala Cys Arg His Pro Met Glu Asp Ser Met Asp Met Asp
  Met Ser Pro Leu Arg Pro Gln Asn Tyr Leu Phe Gly Cys Glu Leu Lys
                                40
  Ala Asp Lys Asp Tyr His Phe Lys Val Asp Asn Xaa Glu Asn Glu His
  Gln Leu Ser Leu Arg Thr Val Xaa Xaa Gly Ala Gly Ala Lys Asp Glu
                        70
                                            75
```

Leu His Ile Val Glu Ala Glu Ala Met Asn Tyr Glu Gly Ser Pro Ile 85 90 95

Lys Val Thr Leu Ala Thr Leu Lys Met Ser Val Gln Pro Thr Val Phe
100 105 110

Pro Leu Gly Ala Leu Asn Asn Thr Thr Xaa Xaa Leu Lys Val Glu Xaa 115 120 125

Trp Phe Arg Ala Met Pro Ile Xaa Gly Gln 130 135

<210> 1550

<211> 51

<212> PRT

<213> Homo sapiens

<400> 1550

Thr Leu Ala Phe Phe Leu Ile Pro Cys Ile Gly Ser Pro Ala Cys Pro 1 5 10 15

Thr Met Ser Asp Ala Ala Val Asp Thr Ser Ser Glu Ile Thr Thr Lys
20 25 30

Asp Leu Lys Glu Lys Lys Glu Val Val Glu Glu Ala Glu Met Glu Glu 35 40 45

Thr Pro Cys 50

<210> 1551

<211> 73

<212> PRT

<213> Homo sapiens

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                  5
                                     10
Arg Asn Ser Arg Val Asp Pro Arg Val Arg Xaa Gly Gly Glu Gln Val
Ser Ser Thr Ile Xaa Gly Leu Ser Gly Pro Pro Ser Arg Arg Gly Pro
         35
                             40
                                                  45
Phe Pro Leu Ala Trp Val Ile Leu Phe Leu Leu Glu Ala Gln Xaa Gly
                                             60
                         55
Pro Trp Xaa Leu Leu Pro Ser Ala His
65
                     70
<210> 1552
<211> 131
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                  5
                                     10
Phe Val Pro Thr Asn Asp Ala Phe Lys Gly Met Thr Ser Glu Glu Lys
Glu Ile Leu Ile Arg Asp Lys Asn Ala Leu Gln Asn Ile Ile Leu Tyr
                             40
His Leu His Gln Glu Phe Ser Leu Glu Lys Asp Leu Asn Leu Val Leu
     50
                         55
Leu Thr Phe Leu Lys Thr Thr Gln Gly Ser Lys Ile Phe Leu Glu Gly
                     70
```

Ser Glu Met Val Thr Leu Leu Val Asn Gly Phe Gly Asn Pro Lys Xaa 90 Ser Asp Ile His Gly Pro Pro Xaa Val Val Ile Ser Cys Cys Arg Leu 105 Asn Xaa Xaa Phe Pro Ala Xaa Thr Pro Phe Gly Xaa Gly Ser Thr Gly Xaa Asp Thr 130 <210> 1553 <211> 106 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (3) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (55) <223> Xaa equals any of the naturally occurring L-amino acids . <220> <221> SITE <222> (94) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (103) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1553 Trp Ile Kaa Arg Ala Ala Gly Ile Arg His Glu Val Ala Asp Thr Met 1 5 Leu Pro Pro Met Ala Leu Pro Ser Val Ser Trp Met Leu Leu Ser Cys 20 25 Leu Met Leu Leu Ser Gln Val Gln Gly Glu Glu Pro Gln Arg Glu Leu 40

Pro Ser Ala Arg Ile Arg Xaa Pro Lys Gly Ser Lys Ala Tyr Gly Ser

1622

50 55 60

His Cys Tyr Ala Leu Phe Leu Ser Pro Lys Ser Trp Thr Asp Ala Asp 65 70 75 80

Leu Ala Cys Gln Lys Arg Pro Ser Gly Asn Leu Val Ser Xaa Leu Ser 85 90 95

Gly Ala Glu Gly Ser Phe Xaa Pro Pro Trp 100 105

<210> 1554

<211> 117

<212> PRT

<213> Homo sapiens

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<221> SITE

<222> (109)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1554

Ala Thr Phe Pro Arg Glu Trp Leu Cys Asp Arg His Leu Arg Glu Lys
1 5 10 15

Met Phe Ser Ser Val Ala His Leu Ala Arg Ala Asn Pro Phe Asn Thr

Pro His Leu Gln Leu Val His Asp Gly Leu Gly Asp Leu Arg Ser Ser 35 40 45

Ser Pro Gly Pro Thr Gly Gln Pro Arg Arg Pro Arg Asn Leu Ala Ala 50 60

Ala Ala Val Glu Glu Gln Tyr Ser Cys Asp Tyr Gly Ser Gly Arg Phe
65 70 75 80

Phe Ile Leu Cys Gly Leu Gly Gly Ile Ile Ser Cys Gly Thr Thr His
85 90 95

Thr Ala Leu Val Pro Leu Asp Leu Val Lys Cys Arg Xaa Arg Phe Val 100 105 110

Phe Ala Cys Trp Thr 115

<210> 1555

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1623

PCT/US00/05882

<211> 164 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (79) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (86) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (125) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1555 Glu Lys Lys Val Glu Arg Gln Thr Glu Leu Lys Arg Lys Phe Glu Gln 10 Met Lys Gln Asp Arg Ile Thr Arg Tyr Gln Gly Val Asn Leu Tyr Val Lys Asn Leu Asp Asp Gly Ile Asp Asp Glu Arg Leu Arg Lys Glu Phe Ser Pro Phe Gly Thr Ile Thr Ser Ala Lys Val Met Met Glu Gly Gly 50 55 Arg Ser Lys Gly Phe Gly Phe Val Cys Phe Ser Ser Pro Glu Xaa Ala Thr Lys Ala Val Thr Xaa Met Asn Gly Arg Ile Val Ala Thr Lys Pro 90 Leu Tyr Val Ala Leu Ala Gln Arg Lys Glu Glu Arg Gln Ala His Leu Thr Asn Gln Tyr Met Gln Arg Met Ala Ser Val Arg Xaa Val Pro Asn 120 Pro Val Ile Asn Pro Tyr Gln Pro Ala Pro Pro Ser Gly Tyr Phe Met 130 135 140 Ala Ala Ile Pro Gln Thr Gln Asn Val Leu His Thr Ile Leu Leu Ala

150

Lys Leu Leu Asn

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1624

PCT/US00/05882

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	0> 1			_					_					_,	
xaa 1	хаа	Leu	Thr	Leu 5	Thr	Xaa	GIÀ	Xaa	Lys 10	xaa	Xaa	хаа	хаа	Thr 15	Ala
Val	Ala	Ala	Ala 20	Leu	Ala	Thr ·	Ser	Gly 25	Ser	Pro	Gly	Pro	Val 30	Arg	Asn
Ser	Ala	Arg 35	Ala	Gly	Thr	Ser	Glu 40	Phe	Leu	Asn	Lys	Val 45	Thr	Glu	Ala
Gln	Glu 50	Asp	Gly	Gln	Ser	Thr 55	Ser	Glu	Leu	Ile	Gly 60	Gln	Phe	Gly	Val
Gly 65	Phe	туг	Ser	Ala	Phe 70	Leu	Val	Ala	Asp	Lys 75	Val	Ile	Val	Thr	Ser 80
Lys	His	Asn	Asn	Asp 85	Thr	Gln	His	Ile	Trp 90	Glu	Ser	Asp	Ser	Asn 95	Glu
Phe	Ser	Val	11e 100	Ala	Asp	Pro	Arg	Gly 105	Asn	Thr	Leu	Gly	Arg 110	Gly	Thr
Thr	Ile	Thr 115	Leu	Val	Leu	Lys	Glu 120	Glu	Ala	Ser	Asp	Tyr 125	Leu	Glu	Leu
Asp	Thr 130	Ile	Lys	Asn	Leu	Val 135	Lys	Lys	Tyr	Ser	Gln 140	Phe	Ile	Asn	Phe
Pro 145	Ile	Tyr	Val	Trp	Xaa 150	Ser	Lys	Thr	Glu	Thr 155	Val	Xaa	Glu	Pro	Met 160
Glu	Glu	Glu	Gly	Ala 165	Ala										

<210> 1557

<211> 127

<212> PRT

<213> Homo sapiens

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His Ser Xaa Xaa Xaa Tyr Asn Lys Trp Glu Thr Ile Glu Ala Trp Thr
Gln Gln Val Ala Thr Xaa Asn Pro Ala Leu Ile Ser Arg Ser Val Ile
         35
                             40
                                                 45
Gly Thr Thr Phe Glu Gly Arg Ala Ile Tyr Leu Leu Lys Val Gly Lys
   50
                         55
Ala Gly Gln Asn Lys Pro Ala Ile Phe Met Asp Cys Gly Phe Pro Met
                     70
                                         75
Pro Xaa Xaa Trp Ile Ser Pro Cys Ile Xaa Pro Val Gly Phe Xaa Lys
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Xaa Ala Val Pro Phe Leu Xaa Thr Phe Xaa Xaa Xaa Leu Thr Asn Phe 100 105 110

Xaa Asn Asn Leu Xaa Phe Tyr Xaa Pro Ala Leu Trp Pro Gln Tyr
115 120 125

<210> 1558

<211> 109

<212> PRT

<213> Homo sapiens

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<400> 1558

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1 10 15

Cys Lys Ser Arg Tyr Pro Val Cys Gly Ser Asp Gly Thr Thr Tyr Pro 20 25 30

Ser Gly Cys Gln Leu Arg Ala Ala Ser Gln Arg Ala Glu Ser Arg Gly
35 40 45

Glu Lys Ala Ile Thr Gln Val Ser Lys Gly Thr Cys Glu Gln Gly Pro
50 60

Ser Ile Val Thr Pro Pro Lys Asp Ile Trp Asn Val Thr Gly Ala Xaa 65 70 75 80

Val Tyr Leu Ser Cys Glu Val Ile Gly Ile Pro Thr Pro Val Leu Ile 85 90 95 Trp Asn Lys Val Xaa Arg Gly His Tyr Gly Xaa Xaa Arg

<210> 1559

<211> 102

<212> PRT

<213> Homo sapiens

<400> 1559

Gly Leu Arg Gly His Leu Arg Ser Ser Gly Ser Ser Ile Trp Asn Tyr

1 10 15

Ile Lys Phe Arg Lys His Val Ser Arg Tyr Asp Ser Arg Thr Thr Ile  $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

Phe Ser Pro Glu Gly Arg Leu Tyr Gln Val Glu Tyr Ala Met Glu Ala 35 40 45

Ile Gly His Ala Gly Thr Cys Leu Gly Ile Leu Ala Asn Asp Gly Val 50 60

Leu Leu Ala Ala Glu Arg Arg Asn Ile His Lys Leu Leu Asp Glu Val 65 70 75 80

Phe Phe Ser Glu Lys Ile Tyr Lys Leu Asn Glu Asp Met Ala Cys Ser 85 90 95

Val Ala Gly Ile Thr Phe 100

<210> 1560

<211> 159

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

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<400> 1560

Ser Thr His Ala Ser Ala Ala His Pro Ser Thr Leu Thr His Pro Gln
1 10 15

Arg Arg Ile Asp Thr Leu Asn Ser Asp Gly Tyr Thr Pro Glu Pro Asp 20 25 30

Lys Pro Arg Pro Met Pro Met Asp Thr Ser Val Tyr Glu Ser Pro Tyr 35 40 Ser Asp Pro Glu Glu Leu Lys Asp Lys Lys Leu Phe Leu Lys Arg Asp Asn Leu Leu Ile Ala Asp Ile Glu Leu Gly Cys Gly Asn Phe Gly Ser Val Arg Gln Gly Val Tyr Arg Met Arg Lys Lys Gln Ile Asp Val Ala Ile Lys Val Leu Lys Gln Gly Thr Glu Lys Ala Asp Thr Glu Glu Met Met Arg Glu Ala Gln Ile Met His Gln Leu Asp Asn Pro Tyr Ile Val 115 120 Arg Leu Ile Gly Val Cys Gln Ala Glu Ala Leu Met Leu Val Met Glu 135 Met Xaa Gly Ala Gly Ala Gln Val Pro Gly Arg Gln Glu Gly 150 <210> 1561 <211> 155 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (139) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (140) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1561 Arg Ala His Glu Asn Glu Ile Thr Lys Val Arg Lys Val Thr Phe Asn

Gly Leu Asn Gln Met Ile Val Ile Glu Leu Gly Thr Asn Pro Leu Lys

Ser Ser Gly Ile Glu Asn Gly Ala Phe Gln Gly Met Lys Lys Leu Ser

40

20

1631

Tyr Ile Arg Ile Ala Asp Thr Asn Ile Thr Ser Ile Pro Gln Gly Leu 55 Pro Pro Ser Leu Thr Glu Leu His Leu Asp Gly Asn Lys Ile Ser Arg 70 75 Val Asp Ala Ala Ser Leu Lys Gly Leu Asn Asn Leu Ala Lys Leu Gly 90 Leu Ser Phe Asn Ser Ile Ser Ala Val Asp Asn Gly Ser Leu Ala Asn 100 105 Thr Pro His Leu Arg Glu Leu His Leu Asp Asn Asn Lys Leu Thr Arg 120 Val Pro Gly Gly Leu Gln Ser Ile Lys Tyr Xaa Xaa Gly Gly Tyr Leu 135 His Asn Asn His Ile Ser Val Val Gly Ser Lys 150 <210> 1562 <211> 72 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (1) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1562 Xaa Asn Gln Asn Ser Asn Gly Leu Val Phe Leu Leu Trp Gly Ser Tyr Ala Gln Lys Lys Gly Ser Ala Ile Asp Arg Lys Arg His His Val Leu 25 Gln Thr Ala His Pro Ser Pro Leu Ser Val Tyr Arg Gly Phe Phe Gly 40 Cys Arg His Phe Ser Lys Thr Asn Glu Leu Leu Gln Lys Ser Gly Lys

Lys Pro Ile Asp Trp Lys Glu Leu

70

<222> (4)

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<210> 1563
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<400> 1563
Arg Thr Arg Gly Arg Leu Leu Gly His Leu Lys Glu Thr Trp Gly His
                                     10
Pro Arg Arg Ala Ser Trp Val Val Arg Ser Arg Arg Cys Arg His Cys
             20
Leu Cys Phe Met Arg Lys Met Leu Ala Ala Val Ser Arg Val Leu Ser
Gly Ala Ser Gln Lys Pro Ala Ser Arg Val Leu Val Ala Ser Arg Asn
     50
Phe Ala Asn Asp Ala Thr Phe Glu Ile Xaa Lys Cys Asp Leu His Arg
Leu Glu Glu Ala Leu Leu Ser Gln Gln Cys Ser Pro Arg Glu Asp Gly
                                     90
Leu Lys Tyr Tyr Arg Met Met Xaa Thr Val Pro Glu Trp Asn
            100
                                105
<210> 1564
<211> 95
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<223> Xaa equals any of the naturally occurring L-amino acids

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<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 1564
Leu His Ser Xaa Cys Thr Arg Arg Gly Ser Gly Ser Leu Arg Leu Cys
                                     10
Ser Val Ala Arg Val Gly Gln Arg Arg Met Thr Ser Ala Ala Met Ser
                                 25
Lys Pro His Ser Glu Xaa Gly Thr Ala Phe Ile Gln Thr Gln Xaa Leu
         35
                             40
His Ala Xaa Met Ala Asp Thr Phe Leu Glu His Met Xaa Arg Leu Asp
     50
                         55
                                             60
```

1634

Ile Asp Ser Pro Pro Xaa Thr Gly Arg Asn Thr Gly Ile Ile Cys Thr
65 70 75 80

Ile Gly Pro Ala Ser Arg Ser Xaa Gly Asp Gly Xaa Gly Xaa Asp 85 90 95

<210> 1565

<211> 50

<212> PRT

<213> Homo sapiens

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<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1565

Pro Thr Met Ala Ala Ile Arg Lys Leu Val Ile Val Gly Asp Gly
1 5 10 15

Ala Cys Gly Lys Thr Cys Leu Leu Ile Val Phe Ser Xaa Asp Gln Phe

Pro Glu Val Tyr Xaa Pro Thr Val Leu Xaa Glu Leu Tyr Cys Ala His 35 40 45

Xaa Gly

50

<210> 1566

<211> 161

1635

<212> PRT

<213> Homo sapiens

<220>

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<222> (155)

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<400> 1566

Ala Ala Met Phe Asn Ile Arg Asn Ile Gly Lys Thr Leu Val Thr Arg
1 5 10 15

Thr Gln Gly Thr Lys Ile Ala Ser Asp Gly Leu Lys Gly Arg Val Phe 20 25 30

Glu Val Ser Leu Ala Asp Leu Gln Asn Asp Glu Val Ala Phe Arg Lys 35 40 45

Phe Lys Leu Ile Thr Glu Asp Val Gln Gly Lys Asn Cys Leu Thr Asn 50 55 60

Phe His Gly Met Asp Leu Thr Arg Asp Lys Met Cys Ser Met Val Lys 65 70 75 80

Lys Trp Gln Thr Met Ile Glu Ala His Val Asp Val Lys Thr Thr Asp 85 90 95

Gly Tyr Leu Leu Arg Leu Phe Cys Val Gly Phe Thr Lys Lys Arg Asn 100 105 110

Asn Gln Ile Arg Lys Thr Ser Tyr Ala Gln His Gln Gln Val Arg Gln 115 120 125

Ile Arg Lys Lys Met Met Glu Ile Met Thr Arg Glu Val Gln Thr Asn 130 140

Asp Leu Lys Glu Val Val Asn Lys Leu Ile Xaa Asp Ala Leu Glu Lys 145 150 155 160

Thr

<210> 1567

<211> 113

<212> PRT

<213> Homo sapiens

<400> 1567

Pro Ser Leu Lys Gly Thr Lys Ala Gly Ala Pro Pro Arg Cys Gly Arg

1636

10 15 . Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Pro 25 Gly Pro Arg Gln Ser Pro Ala Arg Leu Val Ala Met Pro Arg Lys Ile 35 40 Glu Glu Ile Lys Asp Phe Leu Leu Thr Ala Arg Arg Lys Asp Ala Lys Ser Val Lys Ile Lys Lys Asn Lys Asp Asn Val Lys Phe Lys Val Arg Cys Ser Arg Tyr Leu Tyr Thr Leu Val Ile Thr Asp Lys Glu Lys Ala 85 90 Glu Lys Leu Lys Gln Ser Leu Pro Pro Gly Leu Ala Val Lys Glu Leu 100 105 Lys <210> 1568 <211> 48 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (8) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (24) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (33) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1568 Gly Cys Asn Tyr Gly Lys Pro Xaa His His Gly Val Asn Gln Leu Lys 5 Phe Ala Arg Ser Leu Gln Ser Xaa Ala Glu Glu Arg Ala Gly Arg His 20 25

Xaa Gly Ala Leu Arg Val Leu Asn Ser Tyr Trp Val Gly Glu Asp Ser 35 40 45

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<210> 1569
<211> 120
<212> PRT
<213> Homo sapiens
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<400> 1569
Gly Thr Ser Glu Arg Xaa Glu His Ala Met Lys Ala Ser Gly Thr Leu
Arg Glu Tyr Lys Val Val Gly Arg Cys Leu Pro Thr Pro Lys Cys His
             20
Thr Pro Pro Leu Tyr Arg Met Arg Ile Phe Ala Pro Asn His Val Val
                             40
Ala Lys Ser Arg Phe Trp Tyr Phe Val Ser Gln Leu Lys Lys Met Lys
                         55
Lys Ser Ser Gly Glu Ile Val Tyr Cys Gly Gln Val Phe Glu Lys Ser
65
Pro Leu Arg Val Lys Asn Phe Gly Ile Trp Leu Arg Tyr Asp Ser Arg
```

Ser Gly Thr His Asn Met Xaa Arg Glu Xaa Arg Asp Leu Thr Asn Ala

105

```
Gly Ala Val Asn Gln Cys Asn Gly
115 120
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<210> 1570

<211> 85

<212> PRT

<213> Homo sapiens

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<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE

<222> (78)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1570

Cys Pro Pro Leu Trp Gln Glu Glu Val Trp Leu Asp Pro Asn Glu Thr 1 5 10 15

Asn Glu Ile Ala Asn Ala Asn Ser Arg Gln Gln Ile Arg Lys Leu Ile  $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

Lys Asp Gly Leu Ile Ile Arg Lys Pro Val Thr Val His Ser Arg Ala

Arg Cys Arg Lys Asn Thr Leu Ala Arg Arg Lys Gly Xaa His Met Gly 50 60

Ile Val Ser Gly Lys Val Gln Pro Met Pro Glu Cys Gln Xaa Arg Ser 65 70 75 80

His Gly Leu Arg Lys

85

<210> 1571

<211> 135

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1571 Phe Ala Lys Met Thr Asn Thr Lys Gly Lys Arg Arg Gly Thr Arg Tyr Met Phe Ser Arg Pro Phe Arg Lys His Gly Val Val Pro Leu Ala Thr Tyr Met Arg Ile Tyr Lys Lys Gly Asp Ile Val Asp Ile Lys Gly Met 35 40 Gly Thr Val Gln Lys Gly Met Pro His Lys Cys Tyr His Gly Lys Thr Gly Arg Val Tyr Asn Val Thr Gln His Ala Val Gly Ile Val Val Asn 70 Lys Gln Val Lys Gly Lys Ile Leu Ala Lys Arg Ile Asn Val Arg Ile 90 85 Glu His Ile Lys His Ser Lys Ser Arg Asp Ser Phe Leu Lys Arg Val 105 Lys Glu Asn Asp Gln Lys Lys Glu Ala Lys Glu Lys Gly Thr Trp 120 Val Gln Leu Lys Arg Xaa Pro 130 135 <210> 1572 <211> 71 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (7) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (8) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (13) <223> Xaa equals any of the naturally occurring L-amino acids

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<400> 1572
Thr Ala Thr Pro Ala Asn Xaa Xaa Leu Pro Trp Gly Xaa Lys Lys Xaa
Ala Arg Arg Ser Lys Ile Xaa Ser Phe Val Xaa Val Cys Xaa Tyr Asn
             20
                                                      30
                                 25
```

His Leu Met Pro Xaa Arg Tyr Ser Val Xaa Tyr Ser Pro Trp Gly Lys
35 40 45

Ala Val Arg Ser Leu Gly Cys Leu Pro Xaa Phe Leu Ala Leu Lys Arg
50 55 60

Xaa Ala Arg Arg Xaa Pro Arg 65 70

<210> 1573

<211> 68

<212> PRT

<213> Homo sapiens

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<222> (59)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1573

Ala Ala Ala Lys Gly Ala Ala Ala Met Ser Ala His Leu Gln Trp Met
1 5 10 15

Val Val Arg Asn Cys Ser Ser Phe Leu Ile Lys Arg Asn Lys Gln Thr 20 25 30

Tyr Ser Thr Glu Pro Asn Asn Leu Lys Ala Arg Asn Ser Phe Arg Tyr
35 40 45

Asn Gly Leu Ile His Arg Lys Thr Val Gly Xaa Glu Pro Xaa Ala Asp 50 60

Gly Lys Xaa Val

65

<210> 1574

<211> 127

PCT/US00/05882

<212> PRT <213> Homo sapiens <220> <221> SITE <222> (4) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1574 5

Gly Arg Met Xaa Pro Ala Lys Lys Gly Glu Lys Lys Gly Arg 10

Ser Ala Ile Asn Glu Val Val Thr Arg Glu Tyr Thr Ile Asn Ile His

Lys Arg Ile His Gly Val Gly Phe Lys Lys Arg Ala Pro Arg Ala Leu 40

Lys Glu Ile Arg Lys Phe Ala Met Lys Glu Met Gly Thr Pro Asp Val 55

Arg Ile Asp Thr Arg Leu Asn Lys Ala Val Trp Ala Lys Gly Ile Arg

Asn Val Pro Tyr Arg Ile Arg Val Arg Leu Ser Arg Lys Arg Asn Glu 85 90

Asp Glu Asp Ser Pro Asn Lys Leu Tyr Thr Leu Val Thr Tyr Val Pro 105

Val Thr Thr Phe Lys Asn Leu Gln Thr Val Asn Val Asp Glu Asn 120 115

<210> 1575

<211> 115

<212> PRT

<213> Homo sapiens

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<220>

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<220>

WO 00/55350

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<400> 1575
Trp Phe Pro Arg Ala Ala Gly Phe Arg His Xaa Xaa Val Gln Ile Arg
                  5
                                     10
Ala Xaa Glu Arg Lys Gly Thr Ser Ser Phe Gly Lys Xaa Arg Asn Lys
             20
Thr His Thr Leu Cys Arg Arg Xaa Gly Ser Lys Ala Tyr His Leu Gln
                             40
Xaa Ser Thr Cys Gly Lys Phe Gly Tyr Pro Ala Lys Arg Lys Arg Lys
 50
                         55
Xaa Asn Trp Ser Ala Lys Ala Lys Arg Arg Asn Thr Thr Gly Thr Gly
Arg Xaa Arg His Leu Lys Phe Val Tyr Arg Arg Phe Arg His Gly Phe
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1644

85 90 95

Xaa Glu Gly Thr Thr Pro Lys Pro Lys Arg Ala Ala Val Ala Ala Ser 100 105 110

Ser Ser Ser 115

<210> 1576

<211> 121

<212> PRT

<213> Homo sapiens

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<222> (108)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (114)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (116)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1576

Gly Arg Arg Ser Glu Met Thr Lys Gly Thr Ser Ser Phe Gly Lys Arg

1 10 15

Arg Asn Lys Thr His Thr Leu Cys Arg Arg Cys Gly Ser Lys Ala Tyr
20 25 30

His Leu Gln Lys Ser Thr Cys Gly Lys Cys Gly Tyr Pro Ala Lys Arg
35 40 45

Lys Arg Lys Tyr Asn Trp Ser Ala Lys Ala Lys Arg Arg Asn Thr Thr 50 55 60

Gly Thr Gly Arg Met Arg His Leu Lys Ile Val Tyr Arg Arg Phe Arg 65 70 75 80

His Gly Phe Arg Glu Gly Thr Thr Pro Lys Pro Lys Arg Ala Ala Val 85 90 95

Ala Ala Phe Gln Phe Ile Phe Lys Asn Val Asn Xaa Phe Ser His Ala 100 105 110

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Ile Xaa Cys Xaa Gly Val Leu Lys Asn
        115
<210> 1577
<211> 61
<212> PRT
<213> Homo sapiens
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<400> 1577
Gly Ile Val Gly Lys Tyr Gly Thr Arg Tyr Gly Ala Ser Leu Arg Lys
Met Val Lys Lys Ile Glu Ile Ser Gln His Ala Lys Tyr Thr Cys Ser
Phe Cys Gly Lys Thr Lys Met Lys Arg Arg Ala Val Gly Ile Trp His
         35
                             40
Cys Gly Ser Cys Met Lys Thr Val Xaa Gly Xaa Ala Xaa
                         55
<210> 1578
<211> 74
<212> PRT
<213> Homo sapiens
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<222> (67)
<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
<222> (74)
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<400> 1578
Glu Leu Gly Lys Gly Lys Met Glu Lys Pro Ser Pro Tyr Pro Ala Gln
  1
                  5
Gly Pro Cys Ile Ile Tyr Asn Glu Asp Asn Gly Ile Ile Lys Ala Phe
                                 25
Gln Lys His Pro Trp Asn Tyr Ser Ala Xaa Met Xaa Ser Lys Leu Lys
                             40
His Phe Xaa Ser Leu Leu Pro Gly Gly Ala Cys Gly Asp Val Xaa Gly
     50
                         55
Ile Gly Xaa Glu Met Ala Phe Pro Gly Xaa
 65
<210> 1579
<211> 98
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (81) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (87) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (91) <223> Xaa equals any of the naturally occurring L-amino acids Ser Xaa Met Ala Cys Ala Arg Pro Leu Ile Ser Val Tyr Ser Glu Lys 10 Gly Glu Ser Ser Gly Lys Asn Val Thr Leu Pro Ala Val Phe Lys Ala 25 Pro Ile Arg Pro Asp Ile Val Asn Phe Val His Thr Asn Leu Arg Lys 35 40 45 Asn Asn Arg Gln Pro Tyr Ala Val Ser Glu Leu Ala Gly His Gln Thr Ser Ala Glu Ser Trp Gly Thr Gly Arg Ala Val Ala Arg Ile Pro Arg Xaa Arg Gly Gly Thr Xaa Arg Ser Gly Xaa Gly Ala Phe Gly Asn 85 90 95 Met Cys <210> 1580 <211> 72 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (4) <223> Xaa equals any of the naturally occurring L-amino acids

<211> 153 <212> PRT

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<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (71)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (72)
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Leu Ser Leu Xaa Gly Lys Lys Lys Lys Arg Leu Arg Val Asp Lys Trp
                                     10
Trp Gly Xaa Arg Lys Glu Leu Ala Thr Val Arg Thr Ile Cys Ser His
Val Gln Asn Met Ile Lys Gly Val Thr Leu Gly Phe Arg Tyr Lys Met
        35
                             40
Arg Xaa Val Tyr Ala His Xaa Pro Ile Asn Val Val Ile Gln Glu Xaa
Gly Ser Ile Val Glu Ile Xaa Xaa
                     70
<210> 1581
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PCT/US00/05882

<213> Homo sapiens

<400> 1581

Ala Ile Met Gly Arg Met His Ala Pro Gly Lys Gly Leu Ser Gln Ser 1 5 10 15

Ala Leu Pro Tyr Arg Arg Ser Val Pro Thr Trp Leu Lys Leu Thr Ser 20 25 30

Asp Asp Val Lys Glu Gln Ile Tyr Lys Leu Ala Lys Lys Gly Leu Thr 35 40 45

Pro Ser Gln Ile Gly Val Ile Leu Arg Asp Ser His Gly Val Ala Gln 50 55 60

Val Arg Phe Val Thr Gly Asn Lys Ile Leu Arg Ile Leu Lys Ser Lys 65 70 75 80

Gly Leu Ala Pro Asp Leu Pro Glu Asp Leu Tyr His Leu Ile Lys Lys 85 90 95

Ala Val Ala Val Arg Lys His Leu Glu Arg Asn Arg Lys Asp Lys Asp 100 105 110

Ala Lys Phe Arg Leu Ile Leu Ile Glu Ser Arg Ile His Arg Leu Ala 115 120 125

Arg Tyr Tyr Lys Thr Lys Arg Val Leu Pro Pro Asn Trp Lys Tyr Glu 130 135 140

Ser Ser Thr Ala Ser Ala Leu Val Ala 145 150

<210> 1582

<211> 129

<212> PRT

<213> Homo sapiens

<400> 1582

Gly Pro Ala Asn Met Gly Arg Val Arg Thr Lys Thr Val Lys Lys Ala 1 5 10 15

Ala Arg Val Ile Ile Glu Lys Tyr Tyr Thr Arg Leu Gly Asn Asp Phe 20 25 30

His Thr Asn Lys Arg Val Cys Glu Glu Ile Ala Ile Ile Pro Ser Lys 35 40 45

Lys Leu Arg Asn Lys Ile Ala Gly Tyr Val Thr His Leu Met Lys Arg

1650

, 50 55 60

Ile Gln Arg Gly Pro Val Arg Gly Ile Ser Ile Lys Leu Gln Glu Glu 65 70 75 80

Glu Arg Glu Arg Arg Asp Asn Tyr Val Pro Glu Val Ser Ala Leu Asp 85 90 95

Gln Glu Ile Ile Glu Val Asp Pro Asp Thr Lys Glu Met Leu Lys Leu 100 105 110

Leu Asp Phe Gly Ser Leu Ser Asn Leu Gln Ser Leu Ser Leu Gln Leu 115 120 125

Gly

<210> 1583

<211> 109

<212> PRT

<213> Homo sapiens

<400> 1583

Asn Asn Gly Arg Ala Lys Lys Gly Arg Gly His Val Gln Pro Ile Arg 1 5 10 15

Cys Thr Asn Cys Ala Arg Cys Val Pro Lys Asp Lys Ala Ile Lys Lys 20 25 30

Phe Val Ile Arg Asn Ile Val Glu Ala Ala Ala Val Arg Asp Ile Ser 35 40 45

Glu Ala Ser Val Phe Asp Ala Tyr Val Leu Pro Lys Leu Tyr Val Lys
50 55 60

Leu His Tyr Cys Val Thr Val Pro Ser Ile Ala Arg Leu Leu Gly Ile 65 70 75 80

Asp Pro Ala Lys Pro Gly Arg Thr Glu His Pro His His Asp Ser Asp 85 90 95

Leu Leu Ala Leu His Leu Arg Pro Pro Pro Lys Pro Met 100 105

<210> 1584

<211> 119

<212> PRT

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<213> Homo sapiens
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<220>
<221> SITE
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<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1584
Val Gln Arg Phe Ile Lys Ile Asp Gly Lys Val Arg Thr Asp Ile Thr
                                     10
Tyr Pro Ala Gly Phe Met Asp Val Ile Ser Ile Asp Lys Thr Gly Glu
                                 25
Asn Phe Arg Leu Ile Tyr Asp Thr Lys Gly Arg Phe Ala Val His Arg
         35
                             40
Ile Thr Pro Glu Glu Ala Lys Tyr Lys Leu Cys Xaa Val Arg Lys Ile
Phe Val Gly Thr Lys Gly Ile Pro His Leu Val Thr His Asp Ala Arg
Thr Ile Arg Tyr Pro Asp Pro Leu Ile Lys Val Asn Asp Pro Phe Ile
                                     90
Leu Ile Xaa Arg Leu Ala Arg Leu Leu Ile Ser Ser Ile Ser Thr Leu
                                105
Val Thr Cys Val Trp Xaa Leu
        115
<210> 1585
<211> 81
<212> PRT
<213> Homo sapiens
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<220> <221> SITE

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<222> (14)
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<222> (74)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1585
Gly Arg Tyr Ala Ala Lys Arg Phe Arg Lys Ala Gln Cys Xaa Ile Val
Glu Arg Leu Thr Asn Ser Met Met Met Xaa Gly Arg Asn Asn Gly Lys
             20
Lys Leu Met Thr Val Arg Ile Val Xaa His Ala Phe Glu Ile Ile Arg
                             40
Leu Leu Thr Gly Xaa Glu Pro Ser Ala Gly Pro Gly Glu Arg His His
                         55
Gln His Xaa Ser Pro Gly Arg Xaa His Xaa His Trp Ala Arg Arg Asp
 65
                     70
                                         75
                                                              80
Cys
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<221> SITE <222> (117)

<400> 1587

<210> 1586 <211> 111 <212> PRT <213> Homo sapiens <400> 1586 Lys Asn Cys Ile Val Leu Ile Asp Ser Thr Pro Tyr Arg Gln Trp Tyr 5 Glu Ser His Tyr Ala Leu Pro Leu Gly Arg Lys Lys Gly Ala Lys Leu Thr Pro Glu Glu Glu Ile Leu Asn Lys Lys Arg Ser Lys Lys Ile 40 Gln Lys Lys Tyr Asp Glu Arg Lys Lys Asn Ala Lys Ile Ser Ser Leu 50 Leu Glu Glu Gln Phe Gln Gln Gly Lys Leu Leu Ala Cys Ile Ala Ser Arg Pro Gly Gln Cys Gly Arg Ala Asp Gly Tyr Val Leu Glu Gly Lys 90 Glu Leu Glu Phe Tyr Leu Arg Lys Ile Lys Ala Arg Lys Gly Lys 105 <210> 1587 <211> 125 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (105) <223> Xaa equals any of the naturally occurring L-amino acids <220>

<223> Xaa equals any of the naturally occurring L-amino acids

Arg Thr Met Pro Gly Val Thr Val Lys Asp Val Asn Gln Glu Phe

<222> (29)

<220> <221> SITE <222> (33)

Val Arg Ala Leu Ala Ala Phe Leu Lys Lys Ser Gly Lys Leu Lys Val 25 Pro Glu Trp Val Asp Thr Val Lys Leu Ala Lys His Lys Glu Leu Ala 35 40 Pro Tyr Asp Glu Asn Trp Phe Tyr Thr Arg Ala Ala Ser Thr Ala Arg 55 His Leu Tyr Leu Arg Gly Gly Ala Gly Val Gly Ser Met Thr Lys Ile 70 75 Tyr Gly Gly Arg Gln Arg Asn Gly Val Met Pro Ser His Phe Ser Arg Gly Ser Lys Ser Val Ala Arg Arg Xaa Leu Gln Ala Leu Gly Gly Ala Glu Asn Gly Gly Xaa Gly Pro Arg Trp Arg Pro Ala Asn 120 <210> 1588 <211> 38 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (4) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (8) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (19) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE

<223> Xaa equals any of the naturally occurring L-amino acids

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Glu Tyr Xaa Gly Leu Ser Ala Asn Gln Cys Ala Val Xaa Ala Lys Asp
             20
Xaa Val Xaa Cys Gly Tyr
         35
<210> 1589
<211> 55
<212> PRT
<213> Homo sapiens
<400> 1589
Gly Thr Ala Thr Gln Gly Leu Ser Pro Val His Thr Pro Gly Asp Gly
                                     10
Arg Leu His Lys Ala Val Ser Val Gly Pro Arg Val His Ile Ile Glu
                                 25
Glu Leu Gln Ile Phe Ser Ser Gly Gln Pro Val Ala Glu Ser Ala Pro
         35
                             40
                                                 45
Gly Thr Pro Thr Gly Gly Leu
     50
<210> 1590
<211> 92
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1590
Leu Glu Asp Gly Phe Gly Glu His Pro Phe Tyr His Cys Leu Xaa Ala
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. . ... ---

10 15 1 Glu Val Pro Lys Glu His Trp Thr Pro Glu Gly His Ser Ile Val Gly 20 25 Phe Ala Met Tyr Tyr Phe Thr Tyr Asp Pro Trp Ile Gly Lys Leu Leu 40 Tyr Leu Glu Asp Phe Phe Val Met Ser Asp Tyr Arg Gly Phe Gly Ile 55 Gly Ser Glu Ile Leu Lys Asn Leu Ser Gln Val Ala Met Arg Cys Arg 65 70 75 Cys Ser Ser Met His Phe Phe Gly Ser Arg Met Glu 85 <210> 1591 <211> 139 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (1) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (5) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (8) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (10) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (56) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE

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<210> 1592

<211> 42

<212> PRT

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<213> Homo sapiens
<400> 1592
Ala Glu His Gly Asp Gln Asp Tyr Ile Trp His Cys Ile Asp Leu Phe
Leu Asp Phe Ile Thr Val Phe Arg Lys Leu Met Met Ile Leu Ala Met
Asn Glu Lys Asp Lys Lys Lys Glu Lys Lys
         35
<210> 1593
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<212> PRT
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Ser Leu Ala Gln Arg Arg Xaa Xaa Thr Lys Thr Tyr Thr Val Gly Xaa 145 150 155 160

Glu Glu Met His Lys Cys Phe Pro Val Tyr Pro Ser Pro Ala Asn Cys 165 170 175

Arg Val Gly Thr His Cys Leu 180

<210> 1595

<211> 153

<212> PRT

<213> Homo sapiens

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<223> Xaa equals any of the naturally occurring L-amino acids

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1 10 15

Cys Val Pro Cys Thr Glu Gly Phe Arg Gly Trp Asn Gly Gln Cys Leu 20 25 30

Asp Val Asp Glu Cys Leu Glu Pro Asn Val Cys Ala Asn Gly Asp Cys 35 40 45

Ser Asn Leu Glu Gly Ser Tyr Met Cys Ser Cys His Lys Gly Tyr Thr 50 60

Arg Thr Pro Asp His Lys His Cys Arg Asp Ile Asp Glu Cys Gln Gln 65 70 75 80

Gly Asn Leu Cys Val Asn Gly Gln Cys Lys Asn Thr Glu Gly Ser Phe 85 90 95

Arg Cys Thr Val Asp Arg Gly Tyr Gln Leu Ser Ala Ala Lys Asp Gln
100 105 110

Phe Glu Asp Ile Asp Glu Cys His Thr Val Ile Ser Val Ala His Gly
115 120 125

<222> (19)

1662

His Ala Arg Thr Leu Lys Leu Phe Ser Met Cys Phe Leu Thr Xaa Val 130 Thr Glu His Leu Gly Leu Xaa Thr Leu 145 150 <210> 1596 <211> 111 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (102) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1596 Leu Gly Ser Ser Ala Met Ala Pro Ser Arg Lys Phe Phe Val Gly Gly Asn Trp Lys Met Asn Gly Arg Lys Gln Ser Leu Gly Glu Leu Ile Gly 25 Thr Leu Asn Ala Ala Lys Val Pro Ala Asp Thr Glu Val Val Cys Ala 40 Pro Pro Thr Ala Tyr Ile Asp Phe Ala Arg Gln Lys Leu Asp Pro Lys 55 Ile Ala Val Ala Ala Gln Asn Cys Tyr Lys Val Thr Asn Gly Ala Phe . 70 Thr Gly Glu Ile Ser Pro Gly Met Ile Lys Asp Cys Gly Pro Arg Gly Trp Ser Trp Gly Thr Xaa Arg Glu Ala Cys Leu Trp Gly Ile Arg 105 <210> 1597 <211> 82 <212> PRT <213> Homo sapiens <220> <221> SITE

<223> Xaa equals any of the naturally occurring L-amino acids

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<223> Xaa equals any of the naturally occurring L-amino acids
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Ile Phe Glu Asp Ser Asp Ser Leu Arg Leu Arg Arg Asp Val Leu Pro
                                     10
Ala Ala Xaa Val Gln Ala Ala Leu Pro Ala Thr Ser Cys Val Pro His
             20
                                 25
Ala Lys Val Pro Lys Ser His Val His Pro Arg Ser Ala Leu Ser Leu
                             40
Thr Cys Leu Leu Val His Leu Ser Ile Ala His Leu His Leu Ala
     50
                         55
Ser Ile Asn Ala Leu Leu Xaa Gln Pro Tyr His Pro Gly Ser Xaa Xaa
                     70
Ser Pro
<210> 1598
<211> 52
<212> PRT
<213> Homo sapiens
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Xaa Lys Xaa Gly Arg Asn Lys Ala Arg Pro Leu Thr Ser Leu Arg Xaa
 1
                  5
                                     10
                                                          15
Thr Phe Xaa Ala Thr Phe Cys Pro Val Xaa Gly Thr Tyr Ile Leu Asn
             20
                                 25
Asp Cys Pro Xaa Thr His Ser Gly Ile Phe Phe Leu Lys Xaa Xaa
        35
                             40
Xaa Lys Ala Phe
    50
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<211> 32
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<213> Homo sapiens
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<222> (26)
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<222> (27)
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<400> 1599
Ala Phe Asn Xaa Ser Tyr Arg Lys Xaa Val Xaa Ala Val Arg Xaa Glu
                                     10
Phe Arg Val Thr Gln Arg Pro Gly Leu Xaa Xaa Leu Gly Leu Glu Phe
             20
                                 25
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<210> 1600 <211> 19 <212> PRT

<213> Homo sapiens

1666

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Ala Arg Gly Phe Phe Phe Phe Phe Phe Phe Xaa Xaa Phe Xaa Phe
                                  10
Phe Lys Lys
<210> 1601
<211> 22
<212> PRT
<213> Homo sapiens
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Phe Phe Phe Xaa Pro Xaa

<222> (45)

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<210> 1602
<211> 104
<212> PRT
<213> Homo sapiens
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Asp Phe Gly Arg Ser Phe Leu Leu Trp Phe Ser Leu Phe Phe Leu Pro
                                     10
Phe Tyr Ser Ala Arg Ile Ser Gly Gly Leu Met Val Gly Tyr Asn Val
Ser Val Leu Leu Gln Ile Gly Leu Lys Gly Tyr Pro Ala Glu Ser Pro
Ala Phe Leu Ser Ser Ile Tyr Phe Ser Gly Lys Leu Phe Phe Leu Phe
                         55
Phe Phe Lys Val Asn Leu Cys Ile Glu Leu Asn Cys Ile Ser Val Phe
                     70
                                         75
Pro Ala Tyr Val Tyr Ile Ile Pro Met Ile Pro Asn Ser Tyr Leu Tyr
                 85
                                     90
                                                         95
Phe Xaa Thr Asn Ser Gln Ser Glu
            100
<210> 1603
<211> 86
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids

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Phe Leu Met Leu Ser Phe Met Gly Ile Val Thr Phe Leu Phe Ser Lys
                  5
                                     10
Ser His Cys Trp Asn His Gln Gly Cys Gly Met Ser Leu Xaa Val Leu
Phe Met Gln Val Thr Val Thr Phe Ala Ile Met Ala Xaa Phe Glu Thr
        35
                             40
                                                 45
Leu Ile Met Cys Phe Tyr Phe Phe Ile Pro Val Lys Met Xaa Xaa Lys
                         55
                                             60
Arg Lys Lys Val Val Ile Ala Pro Xaa Ile Ser Gly Ser Lys Leu Xaa
                     70
                                         75
Xaa Lys Phe Pro Lys Lys
                 85
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<210> 1604

<211> 34

<212> PRT

<213> Homo sapiens

<400> 1604

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Ser Asp Glu Ile Ile Tyr Asn Phe Ile Val Thr Ser Ser Val Phe Pro
                                      10
Phe Glu Arg Cys Met Asn Ser Leu His Phe Tyr Ser Asn Val Leu Ser
             20
                                 25
Val Asp
<210> 1605
<211> 53
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
<222> (48)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1605
Leu Leu Val Trp Ser Glu Tyr Asn Thr Ser Ile Ile Thr Tyr Asn Ser
                                     10
                                                         15
```

1670

Xaa Pro Gly Thr Gly Gly Tyr Lys Tyr Asn Phe Phe Lys Xaa Asn Ser

20 25 Trp Leu Ser Thr Xaa Leu Gln Val Pro Leu Xaa Gly Xaa Leu Trp Xaa 40 Ile Thr Leu Gly Lys 50 <210> 1606 <211> 32 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (15) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (17) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (20) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (22) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (23) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (28) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (31) <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1606

1671

Asp Ala Trp Ala Asp Ala Trp Gly Lys Val Ser Ser Ser Leu Xaa Ser 5 10 Xaa Ile Cys Xaa Leu Xaa Xaa Arg Lys Val Arg Xaa Gly Gln Xaa Met 20 25 <210> 1607 <211> 31 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (10) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (28) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (30) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1607 Leu Ile Met Asp Thr Ile Leu Asn Lys Xaa Ile Gln Val Lys Pro Val Lys Glu Lys Glu Ile Lys Val Ser Gly Ser Cys Xaa Ser Xaa Val <210> 1608 <211> 107 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (24) <223> Xaa equals any of the naturally occurring L-amino acids

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<400> 1608
Asp Pro Gln Gly Ile Arg His Pro His Ile Val Gln Leu Lys Asp Phe
Gln Cys Glu Leu Gly Ala Gly Xaa Leu Pro Lys Gly Val Glu Lys Asp
             20
                                 25
Ile Xaa Phe Arg Pro Xaa Leu Cys Leu Leu Lys Gln Gln Leu Gly Thr
                             40
Val Glu Pro Ile Asn Leu Xaa Phe Asn Pro Leu Gly Ser Phe Phe Ala
                         55
Gly Gln Gly Gly Arg Lys Pro Trp Xaa Phe Xaa Xaa Phe Xaa Ser
Gln Leu Asn Pro Gly Gln Xaa Asn Phe Leu Gly Pro Leu Lys Glu Lys
Xaa Phe Gly Pro Xaa Xaa Xaa Xaa Leu Ser Xaa
           100
                                105
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<210> 1609 <211> 72 <212> PRT <213> Homo sapiens <220>

<221> SITE

<222> (51)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1609

Arg Gln Thr Ser Thr Ala Lys Leu Gln Lys Gly Gly Phe Cys Ser Arg
1 5 10 15

Arg Lys Glu Asp Val Tyr Leu Gln Gly Ala Lys Gln Gly Glu Leu Gly
20 25 . 30

Ser Ser Cys Leu Arg Pro Asn Leu His Asp Asp Leu Gln Ala Arg Val 35 40 45

Phe Lys Xaa Ser Gly Lys Phe Pro Gly Lys Pro Glu Val Lys Gly Gln 50 60

Asn Cys Lys Ser Val Glu Ile Gly
65 70

<210> 1610

<211> 77

<212> PRT

<213> Homo sapiens

<400> 1610

Leu Tyr Arg Gly Ser Val Gln Gly Arg Val Glu Leu Leu Ser Glu Gly
1 10 15

Ser Leu Gly Gly Pro Leu Arg Pro Gly Pro Asp Pro Val Leu Gln Gly
20 25 30

Leu Ser Gln Gly Gln Val His Gly Glu Thr Met Gly Cys Leu Ser Asp 35 40 45

Thr Asp Leu Ala Leu Leu Ser Pro Pro Ile Arg Leu Ser Phe Leu Cys
50 60

Ser Glu Cys Leu Gln Gly Leu Asp Pro Gly Lys Glu Phe
65 70 75

<210> 1611

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

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Glu Asn Leu Pro Ser Gln Xaa Ala Pro Ala Gly Leu Pro Lys Xaa Xaa
                                     10
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Gln Pro Cys Leu Tyr Phe Tyr Gly Xaa Asn Gly His Lys Ile Ile Ile
             20
Asn Leu Thr Lys Thr Xaa Leu Phe Ser Xaa Phe Leu Glu Leu Ser Trp
                            40
Ser Phe Leu Ile Leu Xaa Phe Gly Asn Xaa Arg Leu Phe Leu Lys Cys
     50
                         55
Phe Xaa Asp Val Lys Ile Xaa Tyr
                     70
<210> 1612
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<212> PRT
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1677

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<400> 1612
Arg Glu Ser Glu Met Leu Cys Asn Leu Leu Xaa Gln Leu Lys His Xaa
                                     10
Met Leu Arg Gly Arg Asn Tyr Lys Xaa Cys Ser Asn Leu Phe Trp Val
             20
                                 25
Ile Xaa Met Tyr Leu Trp Val Gln Ala Leu Phe Gly Gly Phe Xaa Phe
                             40
Gln Arg Asn Xaa Xaa Lys Val Xaa Leu Leu Ile Lys Lys Arg Lys
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<213> Homo sapiens
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Lys Ser Xaa Ser Xaa Thr Ala Gly Asp Arg Xaa Xaa Thr Ser Gly Ser
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1678

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1
                  5
                                                          15
                                     10
Pro Gly Leu Gln Glu Phe
             20
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Asp Gly Gly Phe Xaa Xaa Phe Phe Phe Phe Phe Phe Xaa Xaa Phe
                                     10
Phe Phe Tyr Xaa Trp Val Ile Ser Thr Cys Phe Ile Pro Ala Ile Lys
Ile Ile Lys Asn Ile Ser Asn Tyr Tyr Thr His Thr Lys Xaa Val Gln
                             40
Ser Leu Xaa Leu Pro Pro Thr Pro Arg Gly Lys Asn Cys Phe Xaa Leu
                         55
Trp Glu Val Val Ser Glu Thr Arg Gly Gln Xaa Thr Gln Xaa Arg Leu
Gly Gly Xaa Arg Xaa
                 85
<210> 1615
<211> 85
<212> PRT
<213> Homo sapiens
<400> 1615
Tyr Ala Val Pro Cys Ser Gly Ile Gln Gly Arg Phe Ser Pro Leu Ser
                  5
                                     10
```

1680

Phe Leu Leu Ala Gly Asp Ser Cys Thr Cys Ala Gly Ser Cys Lys Cys 20 25 30 Lys Glu Cys Lys Cys Thr Ser Cys Lys Ser Lys Trp Asp Pro Leu 40 Phe Pro Leu Pro Leu Pro Val Leu Gln Pro Val Pro Ser Ser Pro Ser 50 55 Ser Gly Glu Leu Lys Gln Val Trp Gly Cys Pro Ile Ala Pro Gly Asn 65 70 75 Trp Trp Pro Pro Gln <210> 1616 <211> 29 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (7) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (25) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (28) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (29) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1616 Ala Glu Gly Asn Ile Arg Xaa Ala Lys Lys Lys Lys Lys Lys Lys 1

10

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Lys Lys Lys Lys Lys Lys Lys Xaa Xaa Lys Xaa Xaa 20 25
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<211> 37
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Gly Pro Ala Xaa Trp Arg Glu Thr Pro Pro Xaa Leu Tyr Lys Glu Phe
Pro Gly Val Xaa Gly Ser Phe Ser Leu Xaa Ser Glu Trp Gly Ala Gln
             20
                                25
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Ile Trp Ala Xaa Cys

<210> 1618

<211> 22

<212> PRT

<213> Homo sapiens

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<400> 1618
Gly Xaa Gly Phe Xaa Pro Ser Pro Ser Cys Phe Pro Gln Cys Leu Lys
                                     10
                                                          15
Xaa Leu Asp Gly Leu Xaa
             20
<210> 1619
<211> 52
<212> PRT
<213> Homo sapiens
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Gln Ser Ile Ser Leu Asn Arg Asp Gly Val Glu Glu Leu Lys Val Gly
Ile Cys Ser Leu Met Thr Thr Met Phe Thr Ile Cys Cys Gly Leu Val
            20
                                 25
                                                    30
Gly Ala Leu Arg Gln Glu Asn His Val Glu Pro Thr Gly Ser Arg Pro
        35
                             40
                                                 45
Ala Trp Glu Thr
    50
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 Pro Thr Glu Gln Val Thr Leu Gly Ile Thr Ala Gln Ser Tyr Ser Arg
 Val His Ile Asn Asn Arg Val Tyr Asp Leu Asp Xaa Gly Ser Gly His
              20
                                  25
 Pro Asp Xaa Ala Ala Ile Lys Gly Ser Phe Val Gln Arg Leu Lys
                              40
 Ser Tyr Val Ile
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 <212> PRT
 <213> Homo sapiens
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<400> 1621
Leu Phe Pro Ala Pro Ala Pro Pro Pro Ala Pro Ala Phe Ala Pro Pro
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1684

1 5 15 10 Pro Lys Val Pro Ser Pro Glu Arg Ser Ala Pro Arg Val Pro Leu Pro 25 Ser Pro Gln Pro Ser Tyr Pro Phe Arg Pro Ala Ala Ser Gly Gly Thr 40 Pro Pro Pro Ala Cys Leu Pro Pro Ala Gln Pro Cys Gln Val Pro Pro 55 Ala Met Asn Leu Phe Arg Phe Leu Gly Lys Leu Ser Gln Leu Leu Ala 70 75 Ile Ile Leu Leu Leu Xaa Ile Trp Asn Ser Arg Ser Cys Ala Glu Ile Gln Glu Lys Asn Ser Pro Val Trp Cys Gly Xaa Phe Asn Gly Xaa 100 105 Ile

<210> 1622

<211> 21

<212> PRT

<213> Homo sapiens

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<400> 1622

Val Phe Lys Thr Met Xaa Gln Val Ser Asn Asp Glu Ile Lys His Leu 1 5 10 15

Phe Val Leu Tyr Gln 20

<210> 1623

<211> 40

<212> PRT

<213> Homo sapiens

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PCT/US00/05882

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<222> (40)
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<400> 1623
Leu Arg Thr Ser Cys Phe Xaa Leu Asn Xaa Met Ile His Phe Ile Lys
Val Pro Val Ile Lys Tyr Xaa Val Lys Tyr Leu Leu Xaa Trp Thr Ile
             20
                                 25
                                                     30
Xaa Cys Lys Leu Pro Phe Xaa Xaa
         35
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<211> 95
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<213> Homo sapiens
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<220>

1686

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<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 1624
Ile His Pro Xaa Leu Ala Ser Gln Val Ala Gly His Tyr Arg Arg Glu
                  5
His Ser Arg Pro Arg Leu Lys Xaa Ala Tyr Ser Lys Lys Gln Phe Gln
             20
                                 25
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Phe Leu Ser Lys Leu Cys Xaa Xaa Arg Gly Ser Thr Asp Phe Leu Gly 35 40 45

Pro Val Asn Leu Asn Gln Ser Leu Arg Phe Cys Gln Glu Ser Ser Leu 50 60

Leu Ser Lys Trp Val Phe Pro Asn Gly His Asn Gly Lys Xaa Xaa Arg 65 70 75 80

Gly Xaa Asn Ile Lys Lys Xaa Lys Lys Asn Leu Gly Gly Kaa 85 90 95

<210> 1625

<211> 40

<212> PRT

<213> Homo sapiens

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<220>

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<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1625

Ala Arg Ala Thr Met Ala Leu Trp Thr Xaa Val Ser Phe Ala Glu Xaa l 5 10 15

Leu Glu Arg Gly Ser Asp Glu Lys Val Xaa Leu Lys Arg Leu Ala Arg 20 25 30

Leu Leu Gly Leu Ile Thr Ala Pro 35 40

<210> 1626

<211> 26

<212> PRT

<213> Homo sapiens

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<400> 1626
Ala Arg Ala Gly Ile Val Pro Xaa His Ser Ser Leu Gly Asp Arg Ala
  1
                  5
Arg Leu His Leu Lys Lys Lys Lys Xaa
             20
<210> 1627
<211> 171
<212> PRT
<213> Homo sapiens
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1689

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170

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<210> 1628
<211> 120
<212> PRT
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Arg Pro Ala Arg Ser Pro Ala Glu Val Gly Ser Arg Gly Leu Ser Ser
                                    10
Pro Pro Arg Ala His His Arg Pro Val Ser Pro Ala Ala Pro Gly Arg
             20
Trp Ser Thr Ser Ala Arg Val Arg Thr Arg Lys Met Val Asn Tyr Ala
                             40
Trp Ala Gly Arg Xaa Arg Arg Lys Leu Trp Trp Arg Ser Val Ala Val
                         55
Leu Thr Cys Lys Ser Val Val Arg Pro Gly Tyr Arg Gly Glu Arg Leu
65
                     70
Asn Arg Thr Ile Leu Val Ser Trp Phe Pro Ser Glu Xaa Phe Pro Gln
                                     90
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1691

Asp Lys Leu Gly Ala Leu Ala Arg Pro Arg Arg Asn Pro Xaa Xaa Gly
100 105 110

Ile Phe Ile Arg Xaa Lys Arg Ile 115 120

<210> 1629

<211> 86

<212> PRT

<213> Homo sapiens

<400> 1629

Asn Leu Val Pro Gly Ser Ser Ala Thr Tyr Ile Ser Leu Ser Ser Cys
1 10 15

Cys Phe Val Lys Arg Lys Arg Lys Lys Pro Lys Leu Val Arg Val 20 25 30

Ile Ser Asn Tyr Leu Ile Phe Cys Arg Ser Val Ile Lys Asn Leu Val
35 40 45

Ile Pro Ser Thr Ser Tyr Cys Glu Glu Gln Thr Leu Gly Pro Thr Leu 50 55 60

Lys Ser Pro Leu Val Thr His Ser His Pro Pro Gly Ser Cys Leu Pro 65 70 75 80

Gly Arg Gly Cys Arg Lys

<210> 1630

<211> 35

<212> PRT

<213> Homo sapiens

<220>

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<400> 1630

Leu Lys Lys Lys Phe Pro Glu Glu Glu Lys Lys Thr Thr Lys Asn Lys

1 5 10 15

Thr Leu Lys Val Asp Ile Leu Cys Gly Xaa Thr Phe Glu Leu Asn Ser 20 25 30

Glu Phe Phe

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35
 <210> 1631
 <211> 40
 <212> PRT
 <213> Homo sapiens
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 <400> 1631
 His Glu Gln Pro Thr Ala Ala Cys Ile Cys Ile Xaa Arg Gln Val Pro
                                      10
 Pro Val Pro Ala Ala Arg Xaa Pro Gln Ser Arg Thr Xaa Ser Xaa Gln
 Ala Lys Leu Ala Leu Thr Met Pro
         35
<210> 1632
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<212> PRT
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1694

<400> 1632 Xaa Ser Gly Ser Pro Gly Pro Ala Gly Pro Arg Gly Pro Val Gly Pro 10 Xaa Gly Pro Pro Gly Lys Asp Gly Thr Xaa Gly His Pro Gly Ala Ile Gly Pro Pro Gly Pro Arg Gly Asn Xaa Gly Glu Xaa Gly Ser Xaa Gly Ser Pro Gly Pro Xaa Arg Ala Thr Arg Ala Leu Leu Xaa Pro Pro Gly 50 55 Ala Pro Gly Pro Cys Cys Gly Gly Val Xaa Ala Ala Ala Ile Ala Gly Ile Gly Arg Leu Lys Lys Leu Gly Arg Phe Xaa Pro Arg Val Xaa Trp 85 . 90 Gly <210> 1633 <211> 43 <212> PRT <213> Homo sapiens <220> <221> SITE <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (35) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (38) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (39) <223> Xaa equals any of the naturally occurring L-amino acids <220>

1695

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<400> 1633
10
Lys Lys Lys Lys Lys Lys Lys Lys Gly Arg Pro Phe Xaa Arg
                              25
Ile Gln Xaa Tyr Val Xaa Xaa Xaa Ala Thr Ser
<210> 1634
<211> 88
<212> PRT
<213> Homo sapiens
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Ala Arg Ala Ala Leu Ser Ala Thr Lys Thr Cys Arg Pro Ala Phe Arg
                                 10
Gly Ala Ser Ala Ala Pro Arg Gly Gly Pro Ala Arg Ser Pro Gly
           20
Arg Val Leu Gly Arg His Ala Ala Gly Ser Leu Ala Arg Leu Val Gly
                          40
Arg Ser Arg Gly Phe Trp Leu Leu Gly Gly Glu Val Lys Ser Phe Cys
                      55
Arg Cys Trp Gly Arg Arg Thr Arg Arg Glu Arg Lys Lys Lys Lys
65
                                    75
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Lys Xaa Leu Gly Lys Tyr Phe Xaa 85

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<400> 1635
Tyr Ser His Ser Gly Phe Cys Ser Pro Thr Asp Glu Asp Arg Cys Thr
Asn Glu Ala Asp Gly Asn His Pro Val Glu Val His Leu Arg Ser Asp
Pro Asp Asp Ala Arg Ala Met Thr Gly Pro Ala Gly Val Ala Pro Arg
Gly Asp Gln Pro Trp Ser Ser His Arg Arg Lys Pro Leu Arg Ser Gly
     50
                         55
Lys Arg Arg Lys Xaa Lys Trp Gln Lys Gln Lys Glu Pro Gln Ser
                     70
Ser Ile Gly Asp His Ser Met His Phe Leu Pro Ala Ala Thr Gln Thr
                                     90
Leu Pro Glu Leu Leu Xaa Asn Leu Met
            100
<210> 1636
<211> 47
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids

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<400> 1636
Gln Arg Pro Arg Xaa Xaa Gly Thr Gly Ser Gly Pro Pro Gly Pro Gly
                                      10
Lys Ala Ser His Gly Gly Gly Ala Pro Val Ser Arg Ser Gly Thr Gly
                                  25
                                                      30
Ser Glu Asp Gly Arg Glu Ser Arg Ala Thr Val Val Val Xaa Cys
                              40
<210> 1637
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<212> PRT
<213> Homo sapiens
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<222> (55)
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Gly Asp Pro Pro Glu Gly Pro Ala Thr Ser Pro Leu Thr Asn Ser Xaa
                                      10
His Pro Xaa Ser Xaa Gly Thr Ala Ala Ala Thr Gln Arg Arg Xaa Ser
Glu Gln Gly Gly Arg Xaa Thr Cys Gly Pro Ala Gly Ala Gly Ser Pro
         35
                             40
Xaa Xaa Pro Pro Arg Ala Xaa
     50
<210> 1638
<211> 55
<212> PRT
<213> Homo sapiens
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                                     10
Thr Xaa Xaa Xaa Leu His Ser Ala Asn Val Thr Thr Xaa Xaa Leu Leu
             20
                                 25
Leu Xaa Xaa Phe Tyr Xaa Xaa Arg Xaa Xaa Ala Xaa Val Asn Ile Ser
                             40
                                                  45
Xaa Val Pro His Cys Pro Ile
     50
<210> 1639
<211> 58
<212> PRT
<213> Homo sapiens
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                                     10
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Pro Lys Arg Asn Ser Ser Leu Asp Thr Arg Lys Lys Pro Cys Arg Glu
                                 25
Ser Lys Lys Phe Asn Thr His Ser Arg Pro Lys Ser Ser His Gln Leu
                             40
Arg Lys Arg Ser Ser Xaa Thr Pro Thr Thr
    50
                         55
<210> 1640
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<222> (36)

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<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1640

Met Cys Val Asp Cys Met Asn Asp Leu Glu Lys Lys Lys Lys Lys Lys 1 5 10 15

Gly Xaa Pro Xaa Pro

35

<210> 1641

<211> 41

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<213> Homo sapiens
<400> 1641
Tyr Val Trp Leu Gly His Phe Val Ala Lys Val Arg Thr Cys Leu Trp
Lys Thr Ser Leu Trp Leu Gly Glu Ser Val Trp Pro Ala Ala Ser Asp
Leu Cys Arg Val Leu Thr Cys Gln Gly
         35
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1703

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Ile Xaa Xaa Xaa Leu Ser Pro Pro Leu Xaa Xaa Ser Lys Glu Asn His
                                 25
Phe Asp Ala Arg Ser Cys Leu Xaa Ser Xaa Pro Lys Cys Ser Cys Ser
         35
                             40
Xaa Pro Xaa Pro Gly Ile Ser Leu Pro Arg Asp Lys Ser Ala Ser Glu
                         55
Ile Leu His Asp Ser Leu Cys Phe Gln Asn Pro Gly Leu Phe Cys Ile
65
                     70
                                         75
Ser Ser Phe Leu Gly Pro Ala Ser Cys Val Pro Leu Lys Gly Xaa Trp
                 85
                                     90
Ala Lys Thr
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<210> 1643

<211> 42

<212> PRT

PCT/US00/05882

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<213> Homo sapiens
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Lys Xaa Pro Xaa Asn Leu Gly Lys Ala Arg Leu Gln Val Pro Val Arg
                                     10
Asn Ser Arg Val Asp Leu Arg Val Phe Ile Tyr Ile Asp Ile Tyr Ile
             20
                                 25
Asp Ile Tyr Arg Tyr Ile Tyr Arg Tyr Ile
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<212> PRT
<213> Homo sapiens
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<400> 1646
Ile Ile Cys Phe Val Leu Ser Phe Ile Tyr His Phe Phe Leu Tyr Lys
Ser Ile Ile Ser Arg Phe Leu Tyr Tyr Met Ile Asp Ile Asn Trp Val
             20
                                 25
Ile Ser Ser Arg Gln Phe Val Phe Ser Xaa Xaa Pro Pro Ser Thr Val
                             40
Ser Gln Arg Pro Asp Xaa Val Gly Lys Val Phe Phe Leu Arg Ile Val
     50
                         55
Lys Gly Ser Xaa Gln Leu Gly Leu Ile Lys Ala Xaa Xaa Pro
                     70
<210> 1647
<211> 58
<212> PRT
<213> Homo sapiens
<400> 1647
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1707

Ile Cys Pro Gln Asn Pro Leu Asn Pro Leu Val Asn Leu Thr Val Ser

Pro Lys Arg Asn Ser Ser Leu Asp Thr Arg Lys Lys Pro Cys Arg Glu 25 Ser Lys Lys Phe Asn Thr His Ser Arg Pro Lys Ser Ser His Gln Leu 40 Arg Lys Arg Ser Ser Ser Thr Pro Thr Thr 50 55 <210> 1648 <211> 59 <212> PRT <213> Homo sapiens <400> 1648 Cys Leu Phe Leu Leu Pro Val Met Leu Leu Gln Ile His Ile Ser Arg Ser Thr Val Asn Val Ser Thr Ser Arg Gly Thr Pro Pro Ser Thr Leu Ser Val Lys Gly Gln Asn Glu Thr Val Arg Val Lys Gly Thr Gly Arg 35 Lys Phe Ala Cys Leu Gln Val Thr Arg Ile Arg 50 55 <210> 1649 <211> 110 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (11) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (29) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE

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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1649
Val Pro Pro Pro Val Pro Trp Gly Gly Pro Xaa Arg Glu Gly Glu Val
                                     10
Ser His Thr Lys Ala Asp Ala Pro Leu Val Gly Gly Xaa Trp Pro Gly
Lys Ile Glu Gly Cys Ala Gly Leu Pro Leu Arg Ala Ala Gln Thr Ala
                                                 45
         35
                             40
Leu Met Cys Gly Gly Xaa Ala Arg Trp Val Arg Ala Gln Glu Val Ala
Pro Xaa Thr Val Ala Asp Xaa Leu Pro Arg Val Pro Gly Ser Ser Leu
                     70
                                         75
Tyr Pro Trp Tyr Ala Xaa Asn Xaa Trp Phe Pro His Pro Xaa Ala Ala
                 85
Lys Ser Leu Phe Pro Trp Ile Ser Gln Ala Lys Leu Gly Leu
                                105
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<210> 1650

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<400> 1650
Ser Pro Glu Gly Leu Ser Leu Leu Ala Pro Xaa Pro Gly Arg Ala Pro
                                     10
Ala Gly Pro Thr Pro Leu Arg Gly Gln Cys Gln Xaa Gly Ser Leu Thr
             20
                                 25
Gly Ala Val His Leu Ser Asn Gly Asn Ala Gly Val Leu Arg Arg Ala
Gln Gly Gln Lys Pro Pro Val Glu Gln Lys Gly Lys Ser Ser Leu
                         55
Asp Leu His Phe Gln Tyr Glu Tyr Arg Pro
 65
<210> 1651
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<400> 1651
Asn Lys Gly Gly Gly Arg Met Met Thr Tyr Pro Glu Val Leu Pro Leu
Thr Ala Arg Thr Gly Ala Cys Ser Val Pro Trp Glu His Xaa Ala Gln
             20
Leu Ser Gly Val Gln Ala Val Gly Ser Phe Pro Asn Xaa Ser Ile Ser
                             40
Xaa Pro Xaa Xaa Leu Lys Pro Val Gly Gln Ile Ser Lys Xaa Leu Xaa
                         55
Xaa Arg Xaa Pro Phe Thr Asn Pro Arg Phe Cys Gly Gln Cys Pro Lys
65
                     70
                                         75
Gly Val Gly
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Aumer

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<211> 90
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<213> Homo sapiens
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<222> (11)
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<400> 1652
Phe Phe Phe Leu Asp Val Lys Gly Ile Xaa Phe Gln Arg Leu Leu
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Glu Ser Leu Val Tyr Thr Asp Glu Gly Val Arg Cys Cys Phe Pro Ser 25 Glu Ser Ser Ala Ser Thr Glu Ile Xaa Leu Xaa Leu Ile Phe Asp Ile 40 Leu His Cys Leu Leu Xaa Xaa Xaa Arg Ser Phe Leu Pro Phe Thr Ser 55 Pro Ser Asn Tyr Val Gln Met Cys Arg Leu Leu Xaa Ser Gly Leu Ser Pro Lys Ala Leu Thr Leu Gly Leu Xaa Phe 85 <210> 1653 <211> 55 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (40) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (42) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (44) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (48) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <223> Xaa equals any of the naturally occurring L-amino acids <400> 1653 Lys Leu Trp Phe Val Phe Val Phe Cys Leu Phe His Leu Phe Pro Ser

Gln Pro Gln Thr Phe Cys Ser Leu Arg Glu Leu Thr Phe Pro Phe Phe

1713

25 Phe Leu Phe Phe Phe Gly Xaa Leu Xaa Val Xaa Asn Lys Ile Xaa 40 Xaa Ala Ile Lys Lys Lys 50 <210> 1654 <211> 61 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (2) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (13) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (16) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (41) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (47) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (53) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (58) <223> Xaa equals any of the naturally occurring L-amino acids

1714

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<223> Xaa equals any of the naturally occurring L-amino acids
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Ile Glu Ser Leu Val Pro Leu Leu Ile Trp Pro Gln Lys Pro Pro Asn
Ser Pro Trp Leu Ile Leu Thr Val Xaa Pro Lys Lys Gly Thr Xaa Ser
               40
Leu Gly Pro Leu Xaa Lys Lys Thr Leu Xaa Lys Xaa Asn
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                        55
<210> 1655
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<400> 1655
Ala Ala Val Leu Gln Thr Ala Arg Arg Ala Arg Ser Ala Cys Arg Leu
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Xaa Xaa Xaa Xaa

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<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 1656
Ala Asp Ile Gln Thr Glu Arg Ala Tyr Gln Lys Xaa Xaa Thr Ile Phe
                  5
                                     10
Xaa Asn Xaa Lys Arg Val Leu Leu
             20
<210> 1657
<211> 34
<212> PRT
<213> Homo sapiens
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                                      10
 Leu Asp Leu Leu Ser Pro Leu Pro Gly Arg Glu Gly Leu Gly Xaa Pro
                                   25
 Ser Xaa
<210> 1658
 <211> 51
 <212> PRT
 <213> Homo sapiens
 <400> 1658
 Cys Lys Gln Tyr Leu Thr Asn Pro Gln Val Leu Asn Tyr Gln Thr Cys
                                      10
 Ile Lys Asn Phe Gly Trp Gly Asp Leu Gly Ala Glu Pro Asn Leu Arg
                                   25
 Ala Val His Ala Lys Thr Ser Pro Val Lys Ala Asn Tyr Tyr Thr Gln
 Leu Ile Gln
      50
 <210> 1659
 <211> 166
 <212> PRT
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<210> 1660

<211> 68

<212> PRT

<213> Homo sapiens

165

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<223> Xaa equals any of the naturally occurring L-amino acids

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<400> 1660
Ser Pro Gly Leu Gln Glu Phe Gly Xaa Arg Gly Xaa Arg Asn Arg Leu
Asn Tyr Ala Xaa Xaa His His Xaa Xaa Pro His Arg Xaa Ser Ile Pro
             20
                                 25
                                                     30
Thr His Ala Leu His Ser Xaa Arg Gly Asp Asp Ala Xaa Leu Thr Ile
Lys Ile Xaa Xaa Pro Pro Met Val Leu Glu Pro Thr Ser Thr Pro Asp
                       55
His Xaa Val Asp
 65
<210> 1661
<211> 61
<212> PRT
<213> Homo sapiens
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<400> 1661
Leu Asn Ala Asp Thr Leu Met Asn Asp Gln Gln Leu Ser Ala Leu
Lys Lys Thr Leu Ile Phe Glu Phe Thr Cys Trp Val Pro Gly Ser Asn
                                 25
Gly Gly Lys Arg Pro Leu Phe Ile Lys Arg Gly Pro Pro Phe Xaa Xaa
```

1722

35 40 45

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<210> 1663

WO 00/55350 PCT/US00/05882

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   Ala Ile Thr Ser Ser Leu Val Ala Glu Gly Arg Gly Asn Ile His Leu
                                40
   Phe Met Pro Val Cys Cys Met Gln Ala Phe Trp Leu Pro Thr Leu Gln
                            55
   Gln Asn Asn Cys Thr Asn Ser Leu Val Pro Ile Pro Pro Thr Glu Ser
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1727

1 5 10 15 Pro Lys Arg Asn Lys Leu Phe Gly His Xaa Glu Lys Thr Leu Tyr Arg Glu Glu Xaa Xaa Phe Xaa Asn Pro Tyr 35 40 <210> 1669 <211> 96 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (20) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (77) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (84) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <223> Xaa equals any of the naturally occurring L-amino acids <400> 1669 Gly Arg Ala Leu Pro Gly Arg Val Arg Ala Ala Thr Gly Glu Gly Arg Thr Phe Val Xaa Asn Gly Thr Val Leu Leu Ala Pro Pro Arg Gly Gly 20 25 Pro Leu Val Ser Pro Leu Pro Ala Arg Arg Arg Cys Val Trp Glu Gly Val Gly Cys Gly Pro Arg Pro Asp Leu Ala Val Pro Pro Ala Ala Phe 55 Cys Val Ala Gly Ala Gly Arg Arg Gly Pro Leu Thr Xaa Gln Thr Ala 65 70

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Glu Ala Thr Leu Ser Val His Gln Gly Leu Gly Leu Arg Gly Pro Trp
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Ser Ser Cys Ser Ser Pro Ala Pro Pro Trp Met His Cys Cys Arg Ala
Glu Xaa Pro Leu Pro Gly Pro Ala Leu Gly Phe Leu Glu Thr Ser Phe
                         55
Ser Phe Ala Ile Phe Phe Lys Trp Glu Lys Gly Gln Leu Ser Leu
                    70
Gly Lys Arg Gly Pro Ala Thr Cys Pro Ala Trp Ala Pro Glu Pro Ser
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Ser Leu Thr Gly Gln Ser Leu Val Gly Lys Ala Ala Ser Trp Pro Xaa 100 105 110

Ser Leu Leu Met Phe Leu Val Ser Arg Val Gln Ser Gln Leu Phe Xaa 115 120 125

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His Xaa Xaa Met Glu Ser Asp Lys Met Val Thr Gly Ser Trp Gly Pro 1 5 10 15

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Val Val

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<211> 113

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             20
Ala Ser Trp Pro Thr Arg Ser Arg Glu Ser Leu Arg Glu Arg Arg Arg
                             40
Ser Arg Ala Ala Ser Gly Leu Gly Ile Arg Pro Leu Gly Pro Pro Leu
                         55
Val Ser Arg Val Gly Arg Asn Arg Arg Leu Ala His Leu Ala Trp Val
                   70
Cys Pro His Val Val Ile Val Gln Ile Asn Ala His Ser Glu Leu Ala
Val Tyr Phe Leu Lys Phe Asn Ile Val Phe Val Ile Leu Lys Tyr Leu
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Leu

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Arg Leu Pro Ser Cys Phe Ser Leu Leu Ser Cys His Gln Pro Phe Leu 20 25 30

Leu Gly Gly His Val Leu Gly Lys Arg Pro His Asp Leu Ser Gly Ser 35 40 45

Thr Gln Cys Leu Arg His Pro Ala Ser Phe Ala Cys Ile Pro Gln Thr 50 60

Ile Ser Leu Ile Leu Phe Thr Ala Ala Asn Leu Ser Leu Val Asp Glu 65 70 75 80

Thr Val Phe Ile Xaa Leu 85

<210> 1674

<211> 56

<212> PRT

<213> Homo sapiens

<400> 1674

Ser Asp Tyr Glu Leu Leu Phe Lys Arg Lys Met Leu Phe Ile His Ala 1 5 10 . 15

Glu Val Ile Gln Phe Pro Pro Ser Tyr Arg Ser Ile Leu Ile His Pro 20 25 30

Thr Leu Glu Met Gln His Leu Cys Gly Arg Leu Phe His Lys Pro Pro 35 40 45

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<211> 65

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Leu Lys Ala Leu Asn Val Cys Ile Ala Thr Xaa His Gln Ile Leu Asn
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Gly Leu Ser Phe Gly Trp Asn Tyr Lys Leu Lys Lys Cys Phe Ser Gly
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Lys
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                                     10
                                                         15
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Pro Asp Gly Ala Ala Ile Lys Gly Ser Phe Xaa Gln Arg Leu Lys
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25

30

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1 10 15

Asn Val Ala Val Val Arg Met Lys Arg Ala Arg Lys Arg Phe Glu Ile  $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

Ala Cys Tyr Arg Asn Lys Ser Ser Ala Gly Gly Leu Trp Lys Lys
35 40 45

Thr

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<212> PRT

<213> Homo sapiens

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1 5 10 15

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Ala Asn Gln Ala Ser Asp Thr Phe Ser Gly Ile Gly Lys Lys Phe Gly 35 40 45

Leu Leu Lys 50

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1735

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Ile Thr Asn Xaa Leu Ala Pro Leu Thr Ser Pro Pro Leu Ser Gln His
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Lys Asn Thr Pro Glu Tyr Pro Ala Ile Ile Thr Leu Trp Pro Tyr Xaa
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                                                      30
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Arg Ile Val Val Pro Lys Ala Ala Ile Val Ala Arg His Thr Tyr Leu
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Ala Asn Gly Gln Thr Lys Val Leu Thr Gln Lys Leu Ser Ser Val Arg 65 70 Gly Asn His Ile Ile Ser Gly Thr Cys Ala Ser Trp Arg Gly Lys Ser 85 90 Leu Arg Val Gln Lys Ile Arg Pro Ser Ile Leu Gly Cys Asn Ile Leu 100 105 Arg Val Glu Tyr Ser Leu Leu Ile Tyr Val Ser Val Pro Gly Ser Lys 120 Lys Val Ile Leu Asp Leu Pro Leu Val Ile Gly Ser Arg Ser Gly Leu 130 135 Ser Xaa Arg Thr Ser Ser Trp Xaa Ala Xaa Thr Xaa Ser Glu Asp Glu 145 150 155 160 Xaa Gly Arg Ser Glu His Pro Asp Thr

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gcccctaact ccgcccaft ccgcccattc tccgccccat ggctgactaa tttttttat 180
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International application No.

PCT/US00/05882

A. CLASSIFICATION OF SUBJECT MATTER  IPC(7) : C12P 19/34  US CL : 435/91.1							
According to	International Patent Classification (IPC) or to both n	ational classification and IPC					
	DS SEARCHED						
Minimum documentation searched (classification system followed by classification symbols)  U.S.: 435/91.1							
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched							
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) MEDLINE, SCISEARCH, GenEmbl Database							
C. DOC	UMENTS CONSIDERED TO BE RELEVANT						
Category *	Citation of document, with indication, where ap	Relevant to claim No.					
Y	Database GenEmbl on STN. KELKER, W. 'Sequence of human E-cadherin cDNA', GenEmbl Database, Accession Z18923.1, Version Z18923.1 GI:31074, 04 December, 1992 (04.12.1992), see nucleotide position 456-1007.						
Y	BANERJI, J. A gene pair from the human major histocompatibility complex encodes large proline-rich proteins with multiple repeated motifs and a single ubiquitin-like domain, Proc. Natl. Acad. Sci. USA, 1990, Vol 87, pages 2374-2378, see entire document.						
Y	Database GenEmbl on STN. SKUCE, C. 'Homo sa 661120 map q11.23-12', GenEmbl Database, Acces GI:6983365, 11 FEBRUARY, 2000 (04.02.2000), s	1-12, 14-16, and 21 for SEQ ID NO:3					
Y	Database GenEmbl on STN. RAKER, V.A. 'Human complete cds'., GenEmbl Database, Accession U15 December, 1994 (10.12.1994), see nucelotide positi	1-12, 14-16, and 21 for SEQ ID NO:4					
Y	Database GenEmbl on STN. ELLER et al. 'Cellular skin, mRNA, 735 nt]', GenEmbl Database, Accessi GI:241541, 7 May, 1993 (07.05.1993), see nucleot	1-12, 14-16 and 21 for SEQ ID NO:6					
			<u> </u>				
Purther	r documents are listed in the continuation of Box C.	See patent family annex.					
• s	pecial categories of cited documents:	"I" later document published after the inte date and not in conflict with the applic					
	nment defining the general state of the art which is not considered to be principle or theory underlying the it						
"E" earlier ap	plication or patent published on or after the international filing date	considered novel or cannot be considered when the document is taken alone					
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)		considered to involve an inventive step	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination				
"O" document	referring to an oral disclosure, use, exhibition or other means	being obvious to a person skilled in the					
priority d	published prior to the international filing date but later than the late claimed	"&" document member of the same patent family					
	ectual completion of the international search 0 (03.05.2000)	Date of mailing of the international search report  2 6 JUL 2000					
	ailing address of the ISA/US	Authorized officer	Prilario				
Commissioner of Patents and Trademarks							
	PCT shington, D.C. 20231		for				
Facsimile No. (703)305-3230		Telephone No. (703) 308-0196					

International application No.

PCT/US00/05882

C (Continu	petrosocios882 uation) DOCUMENTS CONSIDERED TO BE RELEVANT	
	Citation of document, with indication, where appropriate, of the relevant passages	Delegant to al-1- b
Category*	Database GenEmbl on STN. SHARMA et al 'Human class III alcohol debydrogenase (ADH5) chi subunit mRNA, complete cds.', GenEmbl Database, Accession M30471, Version M30471.1 GI:178133, 5 October, 1995 (05.10.1997), see nucleotide position 2-2277.	Relevant to claim No. 1-12, 14-16, and 21 for SEQ ID NO:8
	Database GenEmbl on STN. ABEDINIA, M. 'Human transketolase (TKT) mRNA, complete cds.', GenEmbl, Accession U55017 M86521, Version U55017.1 GI:1297296, 6 May, 1996 (06.05.1996), see nucleotide position 687-2038.	1-12, 14-16, and 21 for SEQ ID NO:10
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i.	·	
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Form PCT/ISA/210 (continuation of second sheet) (July 1998)

International application No.

PCT/US00/05882

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)				
This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:				
1. Claim Nos.: because they relate to subject matter not required to be searched by this Authority, namely:				
2. Claim Nos.:  because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:				
3. Claim Nos.:  because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).				
Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)				
This International Searching Authority found multiple inventions in this international application, as follows: Please See Continuation Sheet				
1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.  2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.  3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:				
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-12, 14-16, and 21 for the first 10 sequences in Table 1				
Remark on Protest  The additional search fees were accompanied by the applicant's protest.  No protest accompanied the payment of additional search fees.				

International application No.

PCT/US00/05882

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1.

Group 1, claims 1-12, 14-16, and 21 in so far as they are drawn to the first ten polynucleotides of Table 1 (pages 12-118), protein, vector, gene, method of making host cell, recombinant host cell, method of producing the protein of SEQ ID NO:61.

Groups 2-209, claims 1-12, 14-16, in so far as they are drawn to the next 208 polynucleotide groups (any four sequences constitute a single group) and encoded proteins listed in Table 1.

Groups 210-418, claim 13, in so far as they are drawn to isolated antibodies that bind to any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 419-627, claims 15-16, in so far as they are drawn to a method of making any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 628-836, claim 17, in so far as they are drawn to a method of treatment by administration any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 837-1045, claim 18, in so far as they are drawn to a method of diagnosing a pathological condition by determining a presence or absence of a mutation in any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 1046-1255, claim 19, in so far as they are drawn to a method of diagnosing a pathological condition by determining the presence or amount of any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 1256-1465, claims 20 and 23, in so far as they are drawn to a method of identifying any one group of the next 208 polypeptide sequence groups listed in Table 1, and the product produce by the same method.

Group 1466-1675, claim 22, in so far as they are drawn to a method of identifying an activity in a biological assay by expression of any one group of the next 208 polypeptide sequence groups listed in Table 1.

The inventions not elected, do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT rule 13.2, the non-elected groups lack the same or corresponding technical features for the following reasons: Group 1 corresponds to the first invention wherein the first product is the polynucleotide, and the first method of use is the method of using the polynucleotide to make the protein, and the protein. Note, there is no method of making the polynucleotide. Each of groups 2-1675 does not share the same or corresponding special technical feature because, each group is drawn to different polynucleotide or encoded protein. Additionally, each of groups 210-1675 does not share the same or corresponding technical feature because, each group is drawn to different compounds or methods of using any of the fifty polynucleotides and encoded proteins listed in Table 1. The Authority therefore considers that the several inventions do not share a special technical feature within the meaning of PCT Rule 13.2 and thus do not relate to a single general inventive concept within the meaning of PCT Rule 13.1.